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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE VII.

GENTLEMEN,—From what was stated in the last lecture, you will infer the great importance to be attributed to the large intestines as an object of attention in the treatment of disease, and this, whether the view taken of their functions be correct or not. It is of the more consequence to recognize this fact, because their condition is capable of being more directly observed, and more directly modified than many others whose influence upon life is more distinct and powerful. Affections of the brain, the heart and the lungs, for example, are more dangerous than those of the colon, but then we cannot so well understand what those affections are, nor how they are to be reached by remedies.

The condition of the large intestines in disease is, therefore, particularly worthy of study. They are not only frequently the seat of actual disease themselves, but they are constantly liable to disturbance in diseases of other parts—partly from their intimate sympathies, but partly also from the fact, that, as the alimentary canal is the inlet of so much foreign matter into the system, especially as in disease it is the common receptacle of food and medicine, it is constantly liable to be disordered from the want of harmony between the articles introduced and the state of the organs receiving them.

The symptoms that depend upon the state of the colon—to speak of this for convenience sake as the representative of the whole tract—do not always exhibit themselves in the organ itself, or, if they do, they are also accompanied by symptoms in other parts, and these are often so considerable that they may be supposed to indicate actual affections of those parts. Of this nature are many headaches, both habitual and occasional, some of them of the most severe character—vertigoes, palpitations, dyspnoea, fainting, hysterical and other affections of the mind. The class of symptoms called nervous, and distinct neuralgia, wherever situated, if not proceeding primarily from the condition of the colon, are yet greatly

influenced by it, and capable of being much alleviated by a proper regulation of its functions. Multitudes of those sensations which are the source of so much discomfort to the sick, are traceable to this organ as their source;—such as general uneasiness and restlessness, want of sleep; disturbed, unquiet and unrefreshing sleep; wandering pains and nervous feelings in various parts, especially in the legs; cramps, &c.

The effects produced, or supposed to be produced, by wind or gas in the canal, especially in the colon, illustrate extremely well the way in which these symptoms present themselves. This cause of derangement is apt to be looked upon as a rather trivial matter and hardly worthy of serious notice; yet this is by no means a right view of it. If we measure the importance of a cause by the suffering and annoyance it occasions, this constitutes in many persons by its intensity and persistency a formidable evil. The trouble from wind may arise partly from its quantity, and partly from the state of the organ, when the quantity itself is not abnormal. This is equally true of other parts of the canal. When the mucous and more especially the muscular coat is tender, irritable or inflamed, that amount of flatus which is present in the most healthy organ becomes a source of annoyance. The management of gaseous contents by a hollow muscular organ requires a more exact, and a more difficult effort than for either solid or liquid. This is so much the case that the carrying onward of flatus and its discharge from the rectum by a perfectly healthy intestine is often attended by a sharp pain, where the nature of the food has occasioned a small increase of its quantity. This is much more the case when the muscular power is weak or the intestine irritated or inflamed. In such case, indeed, the ordinary and necessary peristaltic motion is attended by pain, oppression, tenderness and sympathetic sensations. As a consequence of this, patients often imagine that the generation and presence of wind is the real difficulty under which they labor, because all its motions produce so much pain and its evacuation so much relief. The true fact, however, is, not that its quantity is greater than ordinary, but that the state of the organs is such, that the ordinary quantity cannot be handled by them without distress. In such a case relief is not to be sought by promoting the discharge of flatus when it will be only temporary, but by removing or soothing the condition of the intestine. Thus an aromatic, an opiate, or an external application will succeed, when a cathartic fails. But it is not so when there is actually such an increase in the quantity of wind as to distend unnaturally any part of the canal. In this state of tension of the muscular and nervous textures, the movements of the flatus are accompanied by acute intermittent pain—whilst its quiescent condition is attended not only by local uneasiness, but by sundry nervous symptoms agitating both body and mind—by headaches, dizziness, faintness, cramps and pains in various parts, and these can only be relieved by its evacuation.

In judging of symptoms proceeding from the state of the colon, whatever may be their cause, the mechanical relations of this organ are to be kept constantly in view. I refer particularly to the manner in which it is distributed over the abdomen. The small intestines, it is to be recollected, are collected together in mass in the central parts of this cavity, and sensations from them are referred with great uniformity to this region. With the large intestine it is different. This surrounds the small, and visits successively nearly every part of the cavity, coming into contact or into near proximity with all the important organs it contains. Hence sensations in the colon are often confounded with sensations in other parts, and *vice versa*; actual disease in the colon is confounded with disease in its neighborhood, and, still further, a disordered condition of the colon actually disorders the neighboring parts themselves. Examples of this nature are of constant occurrence. Flatus will accumulate and distend the several parts of the organ, producing various symptoms according to the part in which it accumulates. By impeding the descent of the diaphragm, it causes dyspnœa. By pushing it up into the left side of the chest, it interferes with the free movements of the heart, producing palpitation and irregular action. In both hypochondria and across the back, across the hypogastric region, and also in the region of the womb and bladder, the same cause will produce analogous sensations. Various other affections of the colon illustrate the same fact. Acute inflammation is not unfrequently taken for pleurisy—and chronic for inflammation of the liver. The stomach and colon, from their close proximity, mutually affect each other, and so do the colon, womb and bladder. In diarrhœa it often happens that the sudden introduction of warm liquid into the stomach produces immediately a loose discharge by its transmitted impression on the colon, but giving rise to the erroneous idea that the liquid swallowed has passed rapidly through the whole tract of the canal. From a similar transmitted impression, strangury is not an unusual accompaniment of dysentery, and diarrhœa of the advent of the catamenia. Various pains, sometimes fixed, and sometimes rambling in the most promiscuous manner from one part of the trunk to another, can only be explained by attributing them to the several portions of the colon, not diseased, indeed, but weak, tender or irritable; such pains are felt in either hypochondrium, in the epigastrium, at the angle of either scapula, across the small of the back often attributed to the kidneys, in the iliac regions and in the hips. Similar pains exist, no doubt, in other organs when in a corresponding condition, as in the eye, the throat, the stomach, the bladder and the womb, but the erratic character of those to which I refer is due to the mechanical arrangement of the large intestine, and affords one diagnostic mark of their seat.

These considerations explain why it happens that the state of

the colon is capable of such a varied influence in disease—an influence often so transient; why, for instance, even under very considerable disturbance and suffering, such marked and sudden relief is experienced from slight causes, as from a small discharge of fæces or wind—why symptoms vary so much without any corresponding variation in the state of the original disease which can be detected. A little reflection will show us to what a variety of influences this organ is subjected, which without producing serious injury are yet capable of varying the sensations of a part so highly sensitive and the seat of such an extended sympathy; thus partially or imperfectly digested portions of food may be poured into it from the small intestines, and as the elaboration of healthy fæces is as truly vital a function as the digestion of food, and healthy fæces are the only substance which can properly be said to stand in a perfectly normal relation to the mucous lining, anything else may produce irritation. If anything disturbs its function, as a fault in the liver, a fault in its own secretions, the presence of anything which undergoes common chemical changes, such as acidity, putrefaction, the extrication of gas, the patient may be much disturbed and yet the disturbance be very transient and easily removed. The colon is probably sometimes irritated by its own secretions, or rather by that imperfect state of its secretions which proceeds from the combined state of the organ itself, of the liver, and of the ingesta. One or all may be wrong, and yet the excitement of a healthy secretion of bile and its admission into the colon may induce in it a healthy action, and enable it to go through with its natural office of fæcalization.

This statement, though only a partial and imperfect one, serves to illustrate the complicated character of the relations which the colon bears to the body in disease, and consequently of the study of purgatives as remedies; for the study of purgatives is necessarily connected with all the points which have been adverted to. Purgatives, it is true, operate more or less upon the whole canal, but it is their connection with the large intestines mainly with which we are conversant, because it is this connection which we can best observe and understand.

The most obvious and simple idea of a cathartic is that it is an agent which empties the canal of its contents. Yet this is a very incomplete one. The evacuation of the canal is only one of the effects it produces. Probably it is not always, though it may be generally, the most important one, but it is the only one the precise measure of which can be perfectly understood. Whatever other effects are produced, we must remain in considerable uncertainty as to their nature and amount. We must consider cathartics, therefore, only in a general way, as subjects of inference and conjecture rather than of absolute knowledge. Cathartics, we have reason to believe, differ as to the part of the canal upon which they act, and the texture of the part, mucous, glandular or muscu-

lar; as to the character of the secretions they educe; as to the influence their operation upon the canal is capable of exerting upon other parts, as the blood and fluids, and upon the system at large; and as to the way in which the same article may affect different diseases and different constitutions. Here at once we perceive how many elements—as happens with regard to every question in therapeutics—enter into the analysis and complicate the judgment.

Cathartics have effects of several distinct kinds, and these effects will take place irrespective of any beneficial influence over disease. This influence is a separate question. The effects referred to are absolute and are physiological in their character. They may also prove remedial, but not necessarily so, for they may, on the other hand, be injurious. This distinction, already more than once referred to, cannot be kept too constantly in view, for it is apt to be overlooked. We are too ready, if a medicine produces the absolute operation we expect, to infer that it has been rightly used; this, at least, is almost uniformly the popular inference. Yet it is often a very erroneous one. Thus it is very certain that hydragogue cathartics, such as gamboge and elaterium, will produce copious watery discharges from the bowels, and thus often carry away dropsical accumulations; but it by no means necessarily follows, though it undoubtedly sometimes does, that the removal of the accumulation will cure the disease. It is quite possible, on the contrary, that the ultimate influence upon the patient will be disastrous rather than beneficial. It is so in a great many other cases.

The first effect of a cathartic is simply to empty the bowels of what they contain by increasing their muscular action. The second is to increase the natural secretions of the parts upon which they act. The third is to induce some change in the vital condition of the parts, one of the consequences of which is the production of altered secretions. These effects are combined together, and are exhibited in the character of the discharges. The fourth, as a consequence of the preceding, is to produce changes in parts more or less remote and upon the state of the fluids—as upon the brain, the liver, the kidneys, the blood, &c. Now no individual cathartic produces these effects in an insulated manner. No one is an evacuant only; or acts only to increase or alter the secretions. There is no one in whose operations all these offices are not combined in different proportions—in some one predominating, and in some another. But although there is no one cathartic in which all these powers do not probably exist in some degree, there is a vast difference in the relative proportion in which they are exhibited by different articles, and a marked difference in the degree in which they operate on different parts of the canal. As illustrating these different capabilities, we infer that calomel acts chiefly upon the stomach and duodenum, and through them secondarily upon the liver, but hardly any lower down, except so far as the secretions it has pro-

duced excite the intestines below in order to bring about their own evacuation. So much is this the case, that a dose of calomel will often fail to operate unless followed up by some other cathartic. The operation of rhubarb is less distinctly localized, but appears also to act much on the upper part of the canal, whilst senna acts little on the stomach, except from its bulk and nauseous qualities, but much upon the small intestines and moderately upon the large. Aloes and the other resinous cathartics seem more especially related to the large intestines through their whole course, but aloes, particularly, to their lower part. Salts act apparently upon the whole tract of the canal, but in a very superficial way, and to the production of copious watery secretions. Jalap, gamboge and elaterium produce also copious secretions, but they act more deeply, and the secretions are less watery. In contrast with these, castor and croton oils and aloes are particularly distinguished as evacuants, though still having considerable power as producers of secretions. In all these points of view we find infinite varieties in different subjects and in different diseases.

In the first point of view, as evacuants, cathartics are of extensive application in treatment, and within due limits they are of great advantage. They are, indeed, in most cases, indispensable at some period of their course. This needs no extended illustration. A constant onward movement of the contents of the alimentary canal is a law of its function in health, and is, so far as we know, equally so in disease. The peristaltic motion of the intestines probably never intermits, even when the evacuation of fæces is suspended, but is a condition as necessary to their function as the constant distension and collapse of the brain, the rhythmic contractions of the heart, and the alternate dilatation of the lungs, and ultimately, though less immediately, as necessary to life. Whether food be taken or not, whether digestion be going on or not, it seems to be equally indispensable that the contents of the canal, whatever they are, should undergo this onward movement, or at least that the organs themselves should keep up that contraction which governs it.

But though never ceasing altogether, this movement probably is often much diminished in intensity, vigor and effectiveness, and is not only necessary for the propulsion of the contents of the bowels, but to the healthy relations and sensations of all the organs within the abdomen. Many of the disagreeable feelings experienced by costive persons may be owing to the diminution and perhaps temporary suspension, in some part, of this exercise of the muscular tunic, such as a sinking sensation, a sensation of numbness and weakness, of inaction, torpidity, deadness, &c. When such sensations are present, the occurrence of absolute pain is often hailed by the patient as an agreeable change. They are also strikingly relieved, sometimes, by a very small discharge of fæces, secretions or flatus; the relief arising not from getting

rid of the matters evacuated, which seem innocent enough, but from the increased muscular motion indicated, just as the brisk voluntary muscular movement of a long inactive limb is so grateful to the subject, and relieves at once those indescribable nervous sensations which are so commonly experienced.

The second effect is the increase of the ordinary secretions. Some cathartics, particularly the various salts, produce very copious discharges of this kind. As these discharges are directly drawn from the blood, it has been supposed that the bulk of this fluid may in this way be almost as rapidly diminished as by blood-letting, and that therefore purging may be efficaciously employed as a substitute for this remedy. Doubtless the bloodvessels may be unloaded to as great an extent, though somewhat less rapidly, by purging as by bleeding, but it is done in a different way and with a different result. Purging is not an evacuation of the whole elements of the blood, but of only a portion of them. Now although some of the immediate effects of bleeding may be connected with diminished bulk, yet the permanent and remote ones, as we shall have occasion to see hereafter, depend upon a different cause, and these are at least quite as important. The loss produced by purging is speedily restored, and that without any sensible change in the character of the blood; that produced by bleeding, although it may be rapidly restored as to quantity, is repaired as to quality more slowly and by a greater vital effort.

As to the third effect of cathartics, viz., the production of secretions other than the normal ones, no one can reasonably doubt of its reality who is in the habit of carefully inspecting, with this consideration in view, the discharges produced by different cathartics, as calomel and colchicum, for example. Their products are not only unlike each other, but unlike those produced by any other articles, or by any form of disease. In a less marked degree it is not unlikely that the product of each distinct cathartic has something peculiar to itself, and something also dependent upon the state of the intestine and the state of the blood. It is not uncommon in disease to find discharges which are entirely distinct in color, odor and consistence from the natural. In the odor, for instance, we note the acid, the urinous, the cheesy, the foetid, the putrid; and the influence that cathartics are capable of having over the secretory action is shown by the change sometimes produced by their exhibition. Thus, in the bowel complaint of children, where the discharges are entirely altered from their natural condition, a single dose of castor oil will sometimes bring back the natural color and smell, and apparently give an entirely new character to all those secretions which enter into the composition of the stools, especially of the liver and colon.

The last effect of cathartics is to alter the condition of remote parts and the state of the blood. This is closely connected with the preceding. Remote parts may be affected through their sym-

pathy with the state of the colon, or by some modification of its assimilating function which influences the nutritive relations of the blood. The blood may be also more directly modified by changes induced in the excretory office of the colon, and by the secretions educed from it by the operation of cathartics. According to the quality and the ingredients separated from the blood, will necessarily be the character of the blood left after that separation.

It is probable, as already suggested, that the different cathartics have each their peculiar powers in these several respects, and that no two are precisely alike. Still, it is also probable that for many of the purposes of practice the difference is not very important, and they may be employed without attempting a very nice discrimination, in ordinary cases.

[To be continued.]

RESEARCHES OF PASTEUR RESPECTING THE THEORY OF SPONTANEOUS GENERATION.

[Translated and condensed for the AMER. JOURNAL OF SCIENCE AND ARTS, by M. C. WHITE, M.D.]

THE theory of spontaneous generation was long since proposed to account for the origin of beings whose germs were too minute or too obscure to attract attention. One after another the different organisms supposed to arise from spontaneous generation have been proved to originate from germs. At present the question of spontaneous generation concerns only the origin of *entozoa* and those minute organisms which can be studied only with the aid of the microscope, as moulds (minute fungi), and infusoria both animal and vegetable. The common theory that the spores or germs of these minute organisms are constantly floating in the atmosphere, ready to start into activity whenever they meet with a suitable nidus, has found an able advocate in M. Pasteur of the Normal School of Paris, who has published in the *Comptes Rendus*,* a series of valuable papers on this subject, the substance of which I have translated for this Journal.

In order to collect and examine the solid particles floating in the atmosphere, Pasteur placed soluble gun cotton in a glass tube, and by means of an aspirator caused a current of atmospheric air to pass through it for several hours. The cotton was then dissolved in a mixture of alcohol and ether, and the atmospheric dust deposited at the bottom of the fluid in a conical glass was examined with the microscope. The sediment thus collected contained grains of starch, and such other dust as is ordinarily found on surfaces exposed to the air. When submitted to the action of concentrated sulphuric acid the starch was soon dissolved, while other particles remained undissolved, and had all the characteristics of the spores of ordinary mucedines which are

* *Comptes Rendus*, 1860, T. L. LI.

known to resist the solvent properties of concentrated sulphuric acid. [It is worthy of notice that certain minute fungi are capable of decomposing a solution of sulphuric acid. A few years since a little mould, developed in the solution of sulphate of copper used for electrotyping in the department of the U. S. Coast Survey at Washington, proved an intolerable nuisance. It decomposed the salt, assimilating the sulphuric acid and rejecting the copper which was deposited around its threads in a metallic form. From this it appears that sulphuric acid does not prevent but may rather assist the growth of certain fungi.—*Tr.*]

To determine the action of atmospheric air, and of atmospheric dust upon fermentation, putrefaction and the appearance of organization, Pasteur adopted the following methods:

A flask was about half filled with a fluid consisting of water containing in solution about ten per cent of sugar, and from two to seven parts in a thousand of the scum of beer. The neck of the flask was drawn out in the flame of a lamp and attached to a platinum tube $\frac{1}{25}$ of an inch in diameter, which was then heated to redness. The fluid was boiled for two or three minutes to expel all air from the flask, when it was allowed to cool very gradually, and as it cooled, the air which entered the flask was calcined and all organic germs it contained were destroyed, by passing through the red-hot platinum tube. When the flask had thus cooled to the temperature of the surrounding air, the neck was hermetically sealed. The flask was then removed to an oven and kept at the temperature of 80° or 90° F. for an indefinite period, without producing any organisms or undergoing any change whatever.

To test the influence of atmospheric dust upon a fluid thus hermetically sealed, Pasteur placed a pledget of cotton or asbestos in a small tube, and caused a current of common air to pass through it by means of an aspirator. This small tube containing the cotton or asbestos loaded with atmospheric dust, was then transferred to a larger T-shaped tube, one end of which was connected by India rubber with the sealed flask, another end was connected with a platinum tube heated to redness, and the third being connected with an aspirator the apparatus was easily charged with calcined air and all the common air was expelled. The neck of the flask was then broken within the T-shaped tube, and the small tube containing the atmospheric dust was passed into the flask with access only of calcined air. The neck of the flask was then again hermetically sealed by means of the blow-pipe. Many flasks were prepared in this way, and in every case, after standing in a warm situation for twenty-four to thirty-six hours, vegetation appeared in the same manner as if the contents of the flask were exposed to the open air; but the moulds or mucedines appeared first in the little tube carrying the cotton, which was often thus filled to its extremities. The organic growths

which appeared, were the same as in flasks exposed to the open air, viz.: of infusoria, *bacterium*, of mucedines the *penicilium*, *ascophora*, *aspergillus* and some others. When calcined asbestos alone was introduced, no vegetation appeared.

It was thus demonstrated that among the dust suspended in ordinary air there are always *organized* corpuscles, and that these powders, when mixed with a suitable liquid in an atmosphere of itself inactive, give origin to *Bacteria* and *Mucedines* such as are furnished by the same liquid in the open air.

Pasteur confirmed these results by another method. Similar quantities of the same fermentable liquid were introduced into a series of flasks in all respects alike. The necks of the flasks were all drawn out over the flame of a lamp, and bent into a variety of different forms, but the tubular neck of each flask was left with an opening one twenty-fifth of an inch or more in diameter. In some of the flasks the liquid was boiled for several minutes, but three or four were not heated to the boiling point. All the flasks were then set away in a quiet place, free from currents of air. After twenty-four or forty-eight hours, according to the temperature, the flasks in which the liquid was not boiled after being put into them (although all the liquid had been boiled before it was put into the flasks), were found to be troubled, and covered little by little with *mucor*. The liquid which had been boiled in the flasks remained limpid not only for days, but even for entire months, although all the flasks were left open. There can be no doubt that the curves and sinuous forms of the necks, served to secure the contained fluid from the fall of germs.

The common air entered these flasks as they were cooling, but so slowly during the gradual cooling of the hot liquid, that the germs were either destroyed by the heat, or were deposited in the curvatures of the narrow necks of the flasks so that no viable germs reached the liquid. When the neck of one of these flasks was broken off, and the remaining portion placed vertical, in a day or two the liquid became mouldy or filled with bacteria. This method, which so well explains the preceding, and which can be readily practised by any one, carries conviction to unprejudiced minds. It gives also peculiar interest to the proof which it presents to us that *there is nothing in the air except its dust which is a condition of organization*. It thus appears that oxygen acts only to sustain life furnished by germs, while of gas, fluids, electricity, magnetism, ozone, things known or unknown, *there is nothing in the air except the germs which it carries which can originate organic life*.

Fermentation of Urine.—A flask with an attenuated neck was one-third filled with fresh urine and boiled for three or four minutes, and then allowed to cool with no access of air except what was drawn through a platinum tube heated to redness. When cool the flask was hermetically sealed, and the enclosed

urine was thus exposed only to atmospheric air deprived by heat of all viable germs. In this condition the urine remained for months without change. Into a flask thus prepared, asbestos charged with atmospheric dust was introduced by the method above described. The flask was kept at 86° F., and in about six hours mucedines and infusoria appeared, among which were *Bacteria*, *Vibriones* and *Monads*, the same as appeared in similar urine exposed to the open air. During the following days lithates and crystals of triple phosphate were deposited, the urine became ammoniacal, and its urea disappeared under the influence of the true ferment of the urine, which Pasteur believes to be organized, and whose germ could only have been introduced in the atmospheric dust in connection with the germs of infusoria and mucedines. When a flask prepared in the same manner had only calcined asbestos introduced, without atmospheric dust, neither mucedines nor infusoria appeared, neither did any fermentation take place, however long the flask was permitted to remain unopened.

Congulation of Milk.—Fresh milk was boiled in a flask for two or three minutes only, and after being allowed to cool with access of calcined air, as in the preceding experiments, it was hermetically sealed. In eight or ten days the milk was coagulated, but when opened it was found remarkably different from milk coagulated in the open air, for it remained *alkaline as fresh milk*; but the milk was filled with infusoria, most frequently *vibrios* about $\frac{1}{500}$ of an inch in length, yet no vegetable productions were detected.

The common theory that milk coagulates in consequence of the formation of lactic acid is an error. It is also shown that *vibrios* may appear in milk which has undergone ebullition for several minutes at 212° F., although urine or a solution of sugar and albumen does not produce *vibrios* under such conditions. In other experiments the milk was boiled for longer periods under a pressure of $1\frac{1}{2}$ atmospheres at a temperature of 230° or 235° F., and the flasks were sealed as before. Flasks thus prepared, furnished no infusoria; the milk did not coagulate, however long it remained enclosed in the flasks, it remained alkaline even with the presence of oxygen in the form of calcined air, as stated above, and it preserved apparently all the properties of fresh milk.

Into flasks of milk thus prepared, Pasteur introduced atmospheric dust by the method detailed above, when the milk coagulated, and both animal and vegetable productions appeared as in the milk exposed to the open air. The generally admitted theory of ferments, which had of late years received fresh support from the writings of chemists, now appears more and more at variance with the results of experiments. The ferment is not a dead substance without determinate specific properties. It is a being whose germ is derived from the air. It is not an albuminous substance altered by oxygen. The presence of albuminous matters is an indispensable condition of all fermentation, because the "*fer-*

ment" depends upon them for its life. They are indispensable in the light of an aliment to the ferment. The contact of the atmospheric air is, primarily, equally an indispensable condition of fermentation, but it is indispensable only as being a vehicle for the "germs" of the "ferments."

There are many distinct organized ferments which excite chemical transformations, varying according to the nature and organization of the ferment.

To confute various objections made by advocates of spontaneous generation, Pasteur undertook to determine the relative abundance of organic germs in different localities. A series of flasks were all one third filled with the same putrescible fluid (a solution of sugar and albumen was employed in most of the experiments). The fluid was then boiled for two or three minutes in the flasks, and the neck of each flask was drawn out to a fine point and hermetically sealed while the fluid was hot. These flasks were then taken to different localities, and the points of the necks were broken and the air of the several localities allowed to rush in and fill the flasks. This violent ingress of air carried in of course all the dust held in suspension, and all other principles known or unknown associated with it. In this condition each flask was again hermetically sealed, and the whole placed where they were kept at a uniform temperature of 80° to 85° F., a temperature known to be the most favorable for the development of animalcules and mucors. The results of these experiments were not what the principles generally admitted would lead us to expect, but they were perfectly consistent with the theory of the diffusion of germs.

Generally in three or four days the liquid in the flasks was found altered, but in flasks placed in identical conditions were found very different organisms—much more varied, so far as mucedines and torulas were concerned, than if the liquids had been freely exposed to ordinary air. On the other hand, it frequently happened, in a series of experiments, that several of the flasks remained absolutely unaffected for an indefinite time, as if it had received only calcined air.

This simple and unobjectionable method of experimenting appears to demonstrate that the cause of so-called spontaneous generation does not exist in the ambient air throughout its whole extent, but that it is possible to take up in a single place and at a given instant a considerable volume of ordinary air which, without having undergone any physical or chemical change, is altogether unsuitable to give origin to infusoria or mucedines in a liquid which is invariably thus altered when it is exposed to the open air. The partial success of these experiments shows that by these movements of the atmosphere there is always brought to the surface of a putrescible liquid, in an open vessel, a quantity of air sufficient to furnish germs suitable to be developed in two or three days.

It appears that the organic productions in the flasks are more various than if the contact with the air had been free, i. e., the organisms in the several flasks are different. This result might have been expected, for by limiting the rush of air and repeating it with different flasks, a small number of germs would be collected in a limited portion of air and the growth of these germs would not be obstructed by other germs, more numerous or more vigorous or rapid in their growth, capable of monopolizing the soil to the exclusion of those less vigorous or less rapid in growth.

It was found that the number of negative results varied greatly with the atmospheric conditions, and that nothing was easier than to increase or diminish the relative proportion of flasks which gave birth to the organisms mentioned, or the number in which they were totally absent.

In the cellars of the observatory at Paris, so situated as to have very little change of temperature, and where the air was remarkably quiet, the proportionate number of flasks that were opened in that locality without producing any organisms was much greater than for the same number of flasks opened in the court-yard of the Observatory where the air was constantly agitated.

The explanation of this difference is obvious. Although the air of the cellars of the Observatory, nearly saturated with moisture, was more fitted for the production of the various kinds of mould and infusoria than the open air of the court-yard, yet the stillness of the air in the cellars allowed all the ova and spores to be deposited by the force of gravity, and few or none remained floating in the air which rushed into the flasks opened in that locality. In proportion as more precautions were taken to avoid agitating the air, there was less appearance of organization, and Pasteur concludes that if the flasks could be opened and closed in the cellars without the disturbance of the air caused by the entrance of the operator, there would be the same absence of vitality in the flasks filled with air from that locality as if they were filled with air exposed to a red heat.

The following results were obtained by Pasteur with flasks opened in widely different localities :

Sixty-three flasks were each one third filled with a clear liquid obtained by filtering water mingled with the scum of beer, all solid matter being removed by the process of filtering. This liquid is known to be very susceptible of change, for exposure to ordinary air for two or three days is sufficient to give birth to small infusoria or a variety of mucedines. The fluid was boiled in all the flasks, and they were hermetically sealed as in the previous experiments. Twenty of the flasks thus prepared were opened and closed in the country, far from any habitation, at the foot of those heights which form the first plateau of the Jura mountains.

Twenty other flasks were filled with air upon one of the moun-

tains of the Jura, 850 metres (2789 feet) above the level of the sea. Another series of twenty flasks were carried to Montanvert, near the Mer de Glace, to an elevation of 2000 metres (6562 feet), where they were filled with air and hermetically sealed like the others.

Of the twenty flasks opened in the level country, six developed organic productions. Among the twenty flasks opened upon the plateau of the Jura, only five developed organisms. But of the twenty flasks filled with air at Montanvert, when a strong wind was blowing from the gorges of the Glacier des Bois, one only produced organisms.

These experiments show that the air from elevated localities is remarkably free from those germs which give origin to animal products.

In collecting air for these experiments, the following precautions were adopted to avoid, as far as possible, the intervention of dust carried by the operator or deposited on the outside of the flask or other implements required in performing the experiments. The elongated neck of the flask was first heated in the flame of a lamp, and a scratch was made upon the glass with a file. The flask was then raised above the head, with the end of the neck turned towards the wind, and the point was broken off with long iron forceps, the branches of which had previously passed through flame to destroy any dust adhering to their surface, so that it might not remain to be driven into the flask by the sudden rush of air when the point of the flask was broken. Great pains were taken lest the agitation of the liquid in the flasks during transit might exert some influence unfavorable to the development of infusoria or mucédines.

The following results are therefore without objection, and they show the entire difference between the air of the plain or of elevations and that of inhabited places. Pasteur's first experiment at the Glacier des Bois was interrupted by a circumstance which had not been foreseen. He had taken to close the points of the flasks, after they were filled with air, an eolipile lamp fed with alcohol. The whiteness and glare of the ice, in the light of the sun, was so great that it was impossible to see the jet of alcohol flame, and as it was agitated by the wind it could not be directed upon the glass with sufficient steadiness to melt the point and hermetically seal the flask. As no means were at hand to render the flame visible, the flask could not be sealed, and there remained chances of error by the admixture of other powders. The three flasks which had been opened were therefore taken to the small village of Montanvert and sealed at his lodgings the next morning, after they had been exposed all night to the dust of the chambers where he slept. Of these three flasks only two produced either infusoria or mould. Since the number of flasks altered in this experiment is greater than that in those which fol-

lowed (the twenty flasks previously noticed), Pasteur concludes that the agitation of the liquid during the journey had no influence upon the development of germs.

It therefore appears to be satisfactorily demonstrated:—

1. That the air of inhabited places contains a greater relative number of fruitful germs than the air of uninhabited regions.

2. That the ordinary air contains only here and there, without any continuity, the condition of the first existence of generations sometimes considered spontaneous. Here, there are germs; there, there are none.

3. There are few or many, according to the localities. Rain diminishes the number, but after a succession of fine days they are more numerous. Where the atmosphere has been for a long time quiet, germs are wanting, and putrefaction does not take place as in ordinary circumstances.

Guy Lussac, Schwann and Pouchet have performed various experiments upon liquids in contact with common air, with heated air, with artificial air, and with oxygen gas, using a mercurial bath to isolate the substances experimented upon. Some of their results have appeared to favor the theory of spontaneous generation. Pasteur has ascertained that mercury taken from the bath in any laboratory is itself loaded with organic germs. He took a globule of mercury surrounded by an atmosphere of calcined air and passed it into a flask of putrescible fluid by the process detailed in the former part of this paper. In every experiment of this kind, after two days an abundant growth of organic products appeared.

The same experiments were repeated with the same liquids, with no change of manipulation, with the same kind of mercury, except that the mercury was first heated to destroy the germs it contained, and no growths whatever appeared in the flasks.

From all these experiments Pasteur concludes that: *Powders* suspended in the air are the exclusive origin, the first and necessary condition of life in infusions in putrescible bodies and in liquids capable of undergoing fermentation. It is easy to collect and observe with the microscope atmospheric dust, among which may always be found a great number of organized corpuscles, which the experienced naturalist will distinguish as the germs of inferior organisms.

[Some infusoria are not more than $\frac{1}{24000}$ of an inch in diameter, and if we suppose that the ova of infusoria and the spores of minute fungi are no more than one tenth part of the linear dimensions of the parent organism, there must be an incalculable amount of germs no larger than $\frac{1}{24000}$ or $\frac{1}{100000}$ of an inch in diameter. Since, according to Sullivan and Wormley (this Journal, vol. xxxi., p. 12), vision, with the most powerful microscope, is limited to objects of about $\frac{1}{80000}$ of an inch, we need not be surprised if infusoria and other organisms appear in putrescible liquids in far

greater numbers than the germs in atmospheric dust visible by the aid of the microscope would lead us to expect.—Tr.]

Pasteur proposes to continue these investigations, and expresses the hope that the way may thus be opened for a successful investigation of the origin of different diseases.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 8, 1861.

WE had something to say, a few weeks since, on the importance and necessity of the protection against quackery, not only of the profession, but of the people at large, over whose health they are the legitimately appointed overseers. We were led to our remarks by the action of the Louisiana Legislature with reference to this subject, and have since been glad to hear that the subject is attracting the attention of legislators in other portions of the country, and that other States may be induced to follow the noble example of Louisiana and Pennsylvania.

From the following communication, it seems that a need is beginning to be strongly felt in the West for the protection of the community against the horde of quacks of every name and degree which infest that region :—

MESSRS. EDITORS,—I am rejoiced to see a general waking up of the medical profession of this country, to not only their own interests, but to the welfare and protection of the people. It certainly is a source of gratification to know that in some of the States legislative action has been taken upon the subject, and the medical profession is being placed in a position which has been denied it in former years. I refer to the Medical Registration Act already passed in the States of Louisiana and Pennsylvania. There is a pressing necessity of a similar law in this State, and could our Legislators be prevailed upon to pass such an act, they would confer a blessing rarely conferred upon a people. It is true, the West has become somewhat noted for the number of irregular practitioners it sustains, but I am happy to say that the number of that "*genus hominum*" is growing less as the people become more and more acquainted with medical subjects, and they find, gradually, less employment. In the Registration act of Louisiana, and I believe also of Pennsylvania, there seems to be a defect which might be easily remedied. It is this. The act makes it obligatory upon the practitioner to make affidavit that he received a diploma from a regular incorporated medical institution, &c., but it does not require him to make affidavit that he received it in a legitimate and lawful manner. This, I think, he should be required to do, as he may have purchased a diploma from a medical institution, or obtained it in some other illegal manner; by such a clause being incorporated in the act, it debars all practitioners holding such diplomas from the protection and support of the law. There have been two instances in this county where practitioners have purchased diplomas from a certain medical institution in Ohio, both of which were granted to notably incompe-

tent persons ; and if a registration law should be passed in this State, without the clause above spoken of, they too would enjoy its protection and benefits. There may be similar instances in other States, and we cannot be too alert in guarding against them, and any institution guilty of granting diplomas, except in a legitimate manner, should be frowned down, and looked upon as a hot-bed of quackery and charlatanism by all honorable practitioners throughout the land. Hoping that we too may soon rejoice in the passage of a sound registration law,

I am yours, &c.,

CHAS. H. LOTHROP.

Lyons, Clinton Co., Iowa, July 29th, 1861.

DEFICIENCY OF HOSPITAL SUPPLIES IN THE ARMY—VARIOLOID.—The following extracts are from an interesting letter by Surgeon E. K. Sanborn, of the 1st Vermont Regiment, dated Camp Butler, Newport's News, Va., July 20, 1861, and published in the New York *Medical Times* of August 3d :—

"Even now, after three months' time to provide for this increasing army, the Government supplies for hospital furniture are entirely insufficient. As an example which may serve as a general indication of the style of doing things at Fort Monroe, I will give the following cases happening under my own observation. The Vermont Regiment, as is well known, has been suffering from measles, and the usual pulmonary sequelæ ; up to the present time, there have been 116 cases, in most cases owing to exposure in camp under the wonderfully variable temperature of the shores of James river. Severe bronchitis, simple and tuberculous, followed convalescence in a great proportion of the cases, and the demand for simple expectorant combinations was enormous—gallons per week. Now the supplies of squills, paregoric, tolu, have never been sufficient for one regiment. Last week, two ounces of syrup of squills was the entire quantity at the post, where twelve thousand men look for their supplies. No Peruvian bark, nor tinctures or other preparations of this standard remedy, except quinine. After great delay and repeated effort, a small quantity was purchased at Baltimore to meet my extraordinary case. Up to within one week there has been no ambulance or wagon of any shape to send into the field. At the battle of Bethel no conveyance of any description could be sent with the force from this point for the benefit of the wounded, though the force was a thousand strong."

The statement of a correspondent of the *Medical Times*, that no cases of varioloid had appeared at Fortress Monroe, is contradicted by the following extract from Dr. Sanborn's letter :—

"In this camp there have been five well-marked cases of varioloid. two perhaps being classed under the head of discreet smallpox. One of the cases (the last now convalescing) was a colored servant, who had care of the previous cases. The first case was early discovered in the N. Y. 7th Regiment (Germans), and isolated completely, and treated with secrecy, so that even with the cases following, there was no general knowledge of the disease being present among the soldiers. Immediate measures were taken to vaccinate the troops, and lately, by order of Gen. Butler, they have been inspected carefully with regard to this point, by Dr. H. A. Martin, of Roxbury, Mass., an adept in the art."

SURGEONS IN THE LATE BATTLE AT BULL RUN.—In the battle of Bull Run the Medical Staff of the Army seems to have been severely exposed, and to have won deserved praise by its devotion to duty. The surgeons of the New York regiments especially suffered in their efforts to succor the wounded. In this connection we have to record the death of Dr. Alfred Powell, Surgeon of the Second New York Regiment. A captain of that regiment, writing to the *Evening Post*, says : "We mourn the loss of our physician, Dr. Alfred Powell, a noble man, who refused to leave those under his care, and was brutally murdered while placing our wounded in the ambulance." Dr. Powell was a highly respectable practitioner of this city, and relinquished a lucrative business to join his regiment.

His death, under the circumstances above given, attests his devotion to duty in the face of danger, and affords another illustrious example of medical heroism. Among the prisoners we notice the following surgeons from this city: Foster Swift, M.D., Stephen Griswold, M.D., Eugene Peugnet, M.D., S. Ferguson, M.D., Charles DeGraw, M.D.; and from Brooklyn, J. M. Homeston, M.D., and F. Swalm, M.D.; from Maine, B. Buckstone, M.D., A. Allen, M.D., A. A. G. Williams, M.D.

It is stated that the prisoners are engaged in attending the sick in the hospitals.—*American Medical Times*.

GUN-SHOT WOUNDS.—This subject is interesting to the American surgeon. We simply enumerate a few striking facts.

A wound from a rifle ball is usually more depressed and discolored at the entrance than exit, the hole in the soft parts less in diameter than the ball; the contusion takes the form of several concentric circles, the parts involved sloughing out successively.

If the speed of a ball is great, it is very difficult to distinguish between entrance and exit.

Conical balls are seldom deflected; striking a bone, they pass through it, taking the shortest course; their wounds are more irregular, from the fact that they often receive their impulse in the direction of a diameter not parallel to the piece, and hence the side often strikes first instead of the end.

It is said that a 32-pound ball will pass through 70 men: an 8-pound ball, 40; a one-ounce ball, 4.

It has been calculated that of all gun-shot wounds received in battle, there will be two in the abdomen; four in the neck or breast; seven in the head; ten in the arms; four in the hips or legs; one in the knee, and two in the feet. Nerves and bloodvessels, very fortunately, generally escape injury.

The sensation from a gun-shot wound resembles, it is said, a smart blow from a cane. Very many, however, of the worst of wounds are unattended with the least consciousness of injury. A soldier that had both legs shot away thought he had stepped into a hole.

In field-works the proportion of killed to wounded is greater than in the open field, from the circumstance of breast and head being more exposed in the former than in the latter position.

More men, or a larger portion of armies, were slain in battle in old times than at the present day, notwithstanding our improvements in fire-arms.

When the losses reach 33 per cent. the battle is ended. They are said seldom to reach this figure, never going beyond it.—*Ohio Med. and Surg. Journal*.

ON HÆMATURIA.—According to Oppolzer, it is often difficult to determine, in cases of hæmaturia, whether the blood comes from the bladder or the kidneys, as, even in the case of the recognition by the microscope of exudation casts presenting the form of the tubules of Bellini, it is not safe to decide absolutely on the existence of the form. Accordingly, we can only assume that an affection of the kidney is the cause of the hæmaturia when the tubecasts contain on their surface but a few blood globules. The rapidity with which the sediment takes place from the urine cannot be considered as characteristic of hæmorrhage from the bladder, as the duration of the intermixture of the urine with the blood is not known. In order to arrive at a satisfactory diagnosis, Oppolzer considers it essential to make a complete examination of the urine, which in kidney disease is characterized by a diminution of the urea, of the uric acid, and of the coloring matter (particularly of the urophœin of Heller), by an increase of the indigo, and almost invariably by the presence of albumen. On the other hand, if symptoms of a vesical affection are observed, there is a probability that there is disease of the bladder, especially if the urine, when emitted, is found to be decomposed. The causes of hæmorrhage from the bladder are numerous: stagnation of the urine, spasm of the bladder, paralysis, injuries of the bladder and of the adjoining organs by foreign bodies, urinary calculi, cancer; various medicines (such as cantharides), and certain constitutional conditions (as scurvy), may also give rise to hæmaturia. This condition may occur spontaneously, as amongst

the inhabitants of the Isles of France and Bourbon; or it may be occasioned, as in Egypt, by the hæmatobion, which also occasionally determines the formation of stone in the bladder. In all these cases the symptoms must decide what has been the special cause of the hæmaturia. Bleeding from the kidneys occurs in Bright's disease and nephritis; it accompanies renal calculi, cancer and tubercle of the kidneys; and is also observed in cases of disease of the heart, of compression and obturation of the renal veins, of scurvy, and of strongylus gigas. The treatment of hæmaturia consists in the treatment of the disease by which it is occasioned.—*Wien. Allg. Med. Zeitung.*

A NEW SALT OF IRON AND QUININE.—It is generally found that a salt of the protoxide of iron is preferable to one of a higher degree of oxygenation; but it is also difficult to obtain an absolutely permanent salt of the protoxide. Perhaps without exception, the sulphate is the most practically useful of all the salts of iron, owing to the uniformity of its composition. Of the quinine salts, the sulphate is also the most available for general purposes. It is not difficult to form a simple combination of these two sulphates, but the resulting compound is not well fitted for general use. The addition, however, of a certain proportion of sulphate of magnesia, enables us to obtain a salt which is nearly as soluble as the sulphate of magnesia itself—quite unalterable in the solid state, and forming a solution perfectly clear at first, and remaining so for an indefinite period. The iron has no tendency to a further state of oxygenation; the solution had been agitated with oxygen gas, and kept in contact with it for several days, without the least change. A solution of gallic acid tinges a solution of the salt of light bluish color after the lapse of two or three days, and many substances which produce an inky compound with the salts of iron may be mixed with it without causing any change of color.

The proportion of the three sulphates which has been adopted, is 80 per cent. of sulphate of magnesia, 15 per cent. of sulphate of iron, and 5 per cent. of sulphate of quinine, one scruple containing 16, 3, and 1 grains of the respective salts. These proportions have been found the best for general use, and also for the purpose of manufacture. The proportion of quinine may be increased by prescribing an additional quantity which is readily soluble in the solution of the salt.

One peculiarity is especially deserving of notice; that in this combination the assisting or adjuvant property of both iron and quinine are remarkably developed, the effect of both, particularly of quinine, being heightened in a very marked manner. At the same time, both the remedies are less apt to disagree with peculiar constitutions which ordinarily refuse to tolerate either iron or quinine. If the heightened power be borne in mind in prescribing this combination, there will be very few cases found in which it will not be suitable whenever either iron or quinine are indicated.—**DR. FERGUS**, in *London Pharm. Journal*.

LONG ISLAND COLLEGE HOSPITAL.—The second Annual Commencement of this Institution took place on the 16th ult., when the degree of M.D. was conferred on fourteen graduates. The Salutatory was delivered in Latin, by Dr. Mason, who also presented the diplomas. Dr. T. C. Ingersol, of the graduating class, delivered the valedictory.

MEDICAL CORPS OF THE NAVY.—Thirty-seven gentlemen recently passed a successful examination before the Naval Medical Board, convened in Brooklyn, N. Y. The Board is still in session, to fill up the number required by the recent act of Congress. Candidates should make written application to the Secretary of the Navy, stating age, birth-place and residence, with testimonials of moral character.

MUNIFICENT DONATION.—It was announced at the late meeting of the Alumni of Yale College, that the Scientific Department of that Institution had received, during the collegiate year, a second donation of \$50,000 from Joseph E. Sheffield, Esq., of New Haven. The course of education in this Department is essentially that of the Polytechnic Schools of Europe, and is designed to fit young men for commercial and other practical pursuits, as well as for the direct applications of science.

THE ASILES IMPERIALES DE VINCENNES AND VESINET, IN FRANCE.—These are two large and new institutions unlike any other in the world. They are *maisons de convalescence*, or houses for convalescent patients—Vincennes for males, 420 beds; and Vesinet for females, 320 beds. They are about ten miles apart, occupying extensive richly improved grounds and presenting a palatial appearance, abounding not only with comforts but luxuries, such as were never known in institutions of charity before. They are both creations of the present Emperor. Vincennes was opened in 1856. Vesinet in '59; and are intended for the reception of convalescing patients from *all* the hospitals of Paris, which are so crowded, that a patient, if he recovers, cannot possibly fully recuperate there. They are sent out for twenty days to these two houses, where the delightful air in the country, the healthy diet, and other accessories, never fail to restore them to activity and usefulness.

Everything which science, common sense and experience could suggest to render these two institutions true convalescing places, has been done. Never have institutions shown better results than these, and they ought to be imitated in every country.—DR. S. POLLAK, in *St. Louis Med. Jour.*

NEW MEDICAL JOURNAL.—We have received the first number of a new monthly medical journal styled the *Buffalo Medical and Surgical Journal and Reporter*, and under the editorial supervision of Dr. Julius F. Miner, Surgeon to the Buffalo General Hospital. We cannot but admire the courage that attempts so bold an undertaking in the present crisis of affairs, and heartily wish our new friend the success which we are sure he deserves. The number contains 32 pages of reading matter, comprising several original communications of value.

MAJOR-GENERAL MCCLELLAN.—This distinguished officer is a son of the late Dr. George McClellan, of Philadelphia.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, August 3d, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	52	56	108
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	47.7	51.5	99.2
Average corrected to increased population, . . . . .	..	..	110.6
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria
12	32	0	5	3	0	1	2	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.097	Highest point of Thermometer,	84.0
Highest point of Barometer,	30.118	Lowest point of Thermometer,	59.0
Lowest point of Barometer,	29.902	General direction of Wind,	West
Mean Temperature,	74.0	Am't of Rain (in inches)	1.99

BOOKS AND PAMPHLETS RECEIVED.—Transactions of the Medical Society of the State of New York.—Address on the Epizooty, lately prevalent among Swine. By Edwin M. Snow, M.D., of Providence: with the Results of *Post-mortem* Examinations, by G. L. Collins, M.D., of Providence.

DIED.—In Roxbury, July 31st, Dr. Amos Farnsworth, 72.—In Lowell, 1st instant, Myron O. Allen, M.D., only son of Rev. Dr. Allen, 30.—In Cincinnati, William Judkins, M.D., in the 73d year of his age.

DEATHS IN BOSTON for the week ending Saturday noon, August 3d, 108. Males. 52—Females, 56.—Accident, 1—apoplexy, 1—inflammation of the brain, 3—cancer, 3—cholera infantum, 32—cholera morbus, 3—consumption, 12—convulsions, 3—diarrhoea, 1—dropsy, 1—dropsy of the brain, 7—drowned, 1—dysentery, 1—epilepsy, 1—scarlet fever, 5—typhoid fever, 2—hæmorrhage of the bowels, 1—disease of the heart, 2—infantile disease, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 7—necrosis (of the knee-joint), 1—old age, 1—premature birth, 2—unknown, 7—whooping cough, 4.

Under 5 years of age, 73—between 5 and 20 years, 9—between 20 and 40 years, 10—between 40 and 60 years, 7—above 60 years, 9. Born in the United States, 94—Ireland, 13—other places, 1.

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No. 2.

DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE VII.—(Concluded.)

THESE relations of cathartics to the various parts of the alimentary canal, to other organs, to the system in general and to the state of the blood, I believe to be real; yet we are not now in possession of such knowledge as enables us to point out, except very generally, the bearings they have upon the details of practice. We are yet hardly prepared to teach with great confidence concerning them. We must be satisfied if we are able to determine the direction in which we are to learn.

In connection with the varied influences which purgatives are capable of exerting, I would again refer to the popular belief in the existence of morbid conditions of the blood or the presence of *humors* in it, and to the agency of medicines in their removal. Popular beliefs are apt to be unfounded, and effects attributed to one cause are often found to be due to another. This is perhaps equally true of medical opinions. Still I believe that a long-existent, deep-seated, popular belief is always worthy of consideration. It may be founded upon a truth, though the truth may not exist in that precise form in which it presents itself to the popular mind. The once universal belief to which I refer, for a long time discarded by physicians as a vulgar prejudice, but never eradicated, is now found to have a basis in reality, and the corresponding practice is undergoing a similar revival. The principles upon which this practice is to be followed, and upon which, if it be really efficacious, it depends for its efficacy, are probably closely connected with the subjects we have been considering.

It would next be desirable to describe exactly the rules according to which we are to employ purgatives, and to point out how we may avail ourselves of the powers we have found them to possess, in particular conditions of disease. The student will probably be disappointed to find how little precise information can be imparted to him which will stand him in stead in the multiplicity of these conditions, and how much he must be necessarily

thrown upon his own observation and resources, in the practical application of the knowledge he has acquired—a remark not less true of other remedies than of these. Still there are some states of the bowels, an acquaintance with which will not only aid in their treatment, when they occur, but will also serve as examples of the method to be followed in studying the course and determining the character of all the affections of the same organs.

Children are peculiarly liable to disturbances in the alimentary canal connected with the digestion of their food, and this in various ways. Such disturbances are apt to produce serious inroads upon the general health. A very common case is for the food to be imperfectly digested in the upper part of the canal, yet without much sensible disturbance there, but when passed on to the large intestine, to produce a good deal. The stools become loose, frequent, and evidently consist mainly of aliment partially changed and sour, still without amounting to a proper diarrhoea. The patient is irregularly feverish, with a foul or acid breath, full, dense belly, is dull and heavy, yet without sound sleep, very irritable and fractious, and with an irregular and capricious appetite. Sometimes the same symptoms occur without any such state of the stools, which appear pretty healthy. They are quite large, of a natural consistence and of a good faecal appearance. Upon a transient examination the discharges would be pronounced in tolerably good order, but with an unnatural odor and a greater coarseness of surface than is natural. If they are examined carefully, and are disintegrated by directing upon them a forcible stream of water, they are found to want the consistency and coherence of healthy faeces. They fall readily apart, and exhibit a granular and feathery texture, and from amidst them may be washed a large proportion of bits of food scarcely at all changed by the digestive process, though covered over with a thin layer of that which is, this being diffused in the water. Here the external surface only of the morsels of food, which in children are but imperfectly chewed, seem to have been digested and faecalized, leaving the internal portions almost unchanged. With some patients this state of the discharges is not inconsistent with continued health, especially among large eaters, the faecalized surface of the mass only presenting itself to the susceptible lining of the intestines; in others, it produces various degrees of disturbance, characterized essentially by the symptoms above mentioned. These cases principally occur among overfed and promiscuous eaters, from the age of weaning to five or six years; the worst form among the children of the poor, living in dirty, ill-ventilated houses and streets, and feeding upon coarse, ill-cooked, undigestible food; the milder among the children of the more comfortable classes, whose habits are well regulated as to air, exercise and cleanliness, but whose appetites are indulged, especially as to quantity and frequency. A great many of these cases are attributed to worms, and the symptoms are very

like those that worms often produce—and a great many others, especially those in which febrile paroxysms predominate, are classed under the rather indefinite term of “remittent fever of children.” Continued purging with calomel, rhubarb, jalap and other active cathartics, has been generally the accepted practice for these attacks, and if at the same time a careful diet and other proper hygienic measures are enforced, they speedily get well, but will recur time and again if these last measures are neglected. Recovery will also take place from hygienic measures alone, but is hastened by the moderate use of such cathartics as rhubarb, magnesia and aloes, and this is the better way. In cases of long standing, a few grains of pil. hyd. given occasionally hasten recovery, but a far better and more sure method is a change of air and residence, particularly from the town to the country.

Differences are constantly observed in the character of dysentery in different years and in different persons, and in the apparent necessity for purgative medicines in its treatment. In certain cases they are given with much relief, and the relief is coincident with the free evacuation of fæces—in certain other cases they are attended with no relief, and very little fæcal matter can be brought away. It will be found, I think, that the latter class of cases have very often been preceded by diarrhœa, and are apt to be more severe and intractable in their character. The fatal malignant dysenteries are of this class, whilst the mild and benignant ones are of the former. It is a common remark that a case in which we can procure fæcal discharges easily and with relief by means of cathartics, is seldom fatal. Hence these medicines have been so often regarded as indispensable in the treatment of dysentery, and have been vainly persevered in to the last of bad cases, the fatal event being attributed to the fact that cathartics could not be made to operate. But the probability is, that the idea that dysentery is produced by scybala and retained fæces is one of those plausible conjectures, started by some ingenious theorist, which has been handed down traditionally, untested, for many generations. It is a common remark, made on the examination of patients who have died of dysentery, that the intestines are quite free of fæces, and that their contents are mainly composed of the products of disease and of secretions from the upper parts of the canal. Indeed, of the many inspections of this kind I have seen, I cannot call to mind a single one in which anything like accumulated fæces or scybala has been detected.

In passing, a word may be said of the presence of scybala in the stools. To these some significance is usually attached as indicating a costive state of the bowels, and that the matters of which they are composed must have been retained a long time in the colon—in short, that it requires some considerable time for their formation. In dysentery, it is apt to be inferred that those brought away by cathartics have been present from the beginning of the disease,

acting as causes of irritation. That this is possible, cannot be denied; yet it is certain that scybala, like those discharged in dysentery, may be formed in as short a time as twenty-four hours, as I have seen proved by the presence in them of substances taken into the stomach within that period.

The explanation of these differences in dysentery may be this; that, in moderate cases, the digestion of food to some extent still goes on, that the inferior parts of the colon only are diseased, and that the superior are still capable of performing their function and of forming fæces; that these fæces, pushed down by the healthy portions of the colon upon the inflamed, there produce painful but ineffectual efforts to carry them forward, and that purgatives render these efforts effectual, clear away the load, and thus give a period of relief; that in severe cases the large intestine is so extensively involved, that even if any food is acted upon in the stomach and small intestines, it is not transformed into solid fæces in the large, but is transmitted, as it is received, in a liquid form, with the products of disease. Purgatives bring away no fæces, after the bowels have been once emptied at the beginning, because none are formed. This view, if correct, explains why it is that a disease which is sometimes so signally benefited by the operation of cathartics, is at others not only not benefited, but apparently even aggravated by them.

Another state of the colon is that in which, although its function of fæcalization is well performed, it has become incapable of the complete or comfortable propulsion of its contents, in the whole or some part of its course. This difficulty is felt most commonly in the ascending portion, but also in the left part of the transverse, where it turns to descend, and in the sigmoid flexure. The organ is lame, weak and tender, rather than diseased. The state is almost habitual or constitutional in some persons, and is brought on by a variety of causes, but the most illustrative examples are found after severe inflammations of the bowels, after aggravated dysenteries, and after painful and protracted labors. The propulsive effort, whether of fæces or flatus, is attended with either distinct pain, or at least with a sense of great discomfort in some of those various parts of the trunk, which were pointed out as the seats of sensation from affections of the colon. The patient suffers in this way sometimes for several hours till an evacuation takes place; sometimes for several hours without succeeding in an evacuation, the organ finally ceasing to make any effort, and becoming quiet from sheer exhaustion, and continuing sometimes in a state of uneasiness the greater part of the time. In all it will often happen that an evacuation, when it takes place, is followed by a sense of great lassitude, dragging and even pain in the back and hips, and general prostration. The treatment of this condition—some degree and form of which are very common—is attended with great difficulty, especially where it follows upon some severe disease of the

colon itself. Such is the constant necessity for the function of this organ, that we cannot secure to it that adequate rest which is an important means to its recovery. An expedient, sometimes very effectual, and which will at least often promote the comfort of the patient, is fairly to take the matter out of the hands of nature, and daily to empty the bowels at once, either by a purgative or enema. A compact and effectual effort of this kind, though produced by artificial means, interferes less with the natural recovery, than that protracted striving without a thorough accomplishment of the purpose in which the difficulty mainly consists, and really gives the organ concerned more rest. This principle of action is capable of application in a wide range of cases resembling more or less those which have been described, viz., to limit the activity of the large intestine to a short period. This object may, in many cases, be more effectually accomplished by the aid of an intervening opiate.

Various chronic complaints are found to be complicated with a costive state of the bowels, in consequence of which fæces become accumulated in the colon, sometimes to a great amount. It is not always easy to judge how far this is the sole cause of the symptoms which the patient exhibits, or how far it merely aggravates them and interferes with a natural recovery. In either case, a removal of the accumulation, and the prevention of its recurrence, is a necessary condition of recovery. Generally this can be done by the repeated employment of purgatives, and for this purpose those should be selected that are mainly evacuant in their character; though it may also be necessary to combine with them articles that increase the natural secretions. But fæces have sometimes been retained so long that they become hardened into large masses. I have once found the colon so filled with these bodies that they have been felt during life, through the walls of the abdomen, lying along the whole course of this organ, like a chain of tumors, and after death occupying the whole of its cavity, in rounded balls from the size of a walnut to that of a moderately sized orange. These were, from their solidity, obviously incapable of removal, and the freshly formed fæces were, for a long time, only made to pass by them by means of continued purgatives. In this way life had been maintained a long time, and the functions of the digestive organs carried on, though with pain and distress, the patient dying finally of malignant disease of the stomach. Not very unfrequently we encounter another form of impacted fæces, less gradual in its formation, less hardened, and occupying only the lower part of the canal, especially the sigmoid flexure. The comparative rapidity with which the accumulation and distension has taken place, excites presently a powerful effort for their discharge, and they are pressed down into the rectum with great force, but in too large bulk and of too unyielding a texture to accommodate themselves to the passage of the anus. The effort is attended with

great pain along the whole course of the colon, and a bearing down into the pelvis like that in parturition, for which, in the female, it might be mistaken. On examination, the hard mass is found occupying the cavity, like the head of a child. In slight cases of this sort, enemata and purgatives will sufficiently aid the natural attempt at expulsion, but in the more severe, this is impossible. Relief can only be obtained by manual assistance, and the hardened masses require to be broken up by the fingers or the handle of a spoon before they can be got away. The quantity thus discharged is sometimes enormous. Similar accumulations have taken place from eating at once large quantities of indigestible substances, as cinnamon or cherry-stones.

There are several other states of the colon, somewhat connected with each other, in which a certain degree of looseness is a predominant feature. They are incident to persons whose functions are not otherwise much disturbed, though they have not usually firm health, yet they are sometimes the accompaniment of distinct disease. In one set of cases there is an alternation of costiveness and diarrhoea, often unconnected with any assignable cause, though often dependent upon exposure, variations in the weather, certain kinds of food, or emotions of the mind. In another set, it is obvious that the difficulty depends upon a retention of some of the more solid portions of the fæces, while the liquid are discharged in a loose state; the retained portions acting as causes of irritation, preventing the proper absorption of the thinner portions of the digested mass, and perhaps giving rise to an increased secretion of the natural fluids. In still other cases, there is no retention of fæces, but rather a premature discharge of them, from an apparent incapacity in the colon to retain them till its whole function is performed. The discharges consist rather of thin and imperfect fæces, than of anything morbid, and may amount to so many in a day as to constitute a form of diarrhoea, and yet interfere so little with the health as to be simply an inconvenience.

These states probably all depend upon a weakened condition of the large intestines, manifesting itself in these different ways. They require a careful observation and arrangement of all those circumstances in the habits and mode of life of the patient, that are found to influence them. There is seldom any occasion for the use of purgatives. Still, when there is evidence that an insufficient evacuation of the bowels is one of the elements of the case, the continued administration of a very small dose of a mild cathartic, especially castor oil or rhubarb, will be found of great service.

With regard to most of the states of the bowels of which we have been speaking, it is to be observed that they are seldom connected with fatal disease, and our explanation of their nature is consequently conjectural; it may therefore be erroneous. The same, however, is true of a very large proportion of the cases of other

kinds that come under our care in ordinary practice. It is only the more important that the course of symptoms, as indicating the mode of action and the condition of the organs, and the changes that take place among them, should be made the subject of careful observation, reflection and reasoning.

CASE OF DOUBLE CONGENITAL CATARACT OPERATED ON WITH
SUCCESS AT THE AGE OF EIGHTEEN.

[Medical Correspondence of the Bulletin Générale de Thérapeutique Médicale et Chirurgicale, July, 1861.]

TRANSLATED FOR THE JOURNAL BY THOMAS WELSH, M.D., BOSTON.

WHILE waiting till I have leisure to prepare my new observations upon the good effects of the use of arnica and aconite in the treatment of cataract, permit me to give you a description of one of the last cures I have been called to attempt. Besides, cases of congenital cataract not operated on before the age of puberty are not so common but that every one deserves a particular notice.

The following is the case:—Mlle. Louise A., of Montnessat, 18 years old, had the misfortune to be born with a double cataract, and to belong to a family which believed in the stupid prejudice that the establishment of the menses would bring a spontaneous cure of the blindness of their child. When the period of puberty arrived, her parents, seeing that the appearance of menstruation did not bring any change in the vision of their daughter, at last decided to consult me. What was their regret, when I told them that the operation at the age of ten or twelve months would have as much as, if not more chance of success than at 18 years, and that they had, besides, lost valuable time for the education of their child. Fortunately, this young lady has great intelligence, and will rapidly acquire the knowledge resulting from the use of her eyes. October 15th, 1860, assisted by M. L. Muré, I operated by depresso-reclination* upon both eyes of Mlle. Louise. The cataracts being siliquose, it was not without difficulty that I succeeded in keeping the two layers of the opaque capsule immersed in the vitreous humor; they constantly strove to come up into the field of the pupil. In order to prevent the effects of the wound caused by the needle, I put my patient on the use of arnica and aconite, administered alternately, according to my method. Perfect quiet was enjoined; a sleep of four hours during the first night was accompanied by a gentle moisture of the skin. The two following days the pulse was slow and depressed; then it recovered progressively its normal force and rhythm.

* By the term depresso-reclination, I mean a mixed procedure of depression in which depression of the cataract is associated with its reclination; that is to say, before tipping the lens into the inferior and external part of the vitreous humor, I take care to lower it a little vertically until a semilunar opening appears in the upper fifth of the pupil. By this method we prevent, during the displacement of the cataract, either the falling of the lens into the anterior chamber, or the too immediate compression of the retina or choroid coat.

It is impossible for me to depict the joy and astonishment which the patient experienced on the first raising of the bandage, the eighth day. I then witnessed the following condition: the left pupil is clear and completely free; but the right is occasionally obstructed by the cataract, which floats in the posterior chamber and produces the phenomenon of intermittent vision. At her age I rely upon its prompt absorption, and if, contrary to my expectation, it should be otherwise, I should resort to extraction by means of the ingenious *serre téle* of M. Charrière.

Let me say a word now of the curious phenomena, or rather strange aberrations, which this sense of vision, putting her in relation for the first time with the external world, has presented to us. The first sensation of light produced so lively a sensation that the eyes were seized with convulsive movements, and it was only after having established twilight in the room, and after numerous oscillations, that the globes of the eyes maintained their equilibrium. When the organ of vision was accustomed to the light, I attempted some experiments and observed the following facts: when an object is presented to Mlle. Louise, she can neither appreciate its form or color; she is obliged to touch it, to tell its name or use. The laws of visual accommodation are lost for her; thus, she judges distances so inaccurately that she constantly places her hand beyond the objects she wishes to grasp. Besides, this young lady has been so in the habit of using the sense of touch to supply that of sight, that, after having the name of an object pointed out to her, she feels the need of taking hold of it and manipulating it in every direction, so as to fix the form of it as well as its other characteristics in her memory. When an object has been presented to this double inspection it remains impressed on the memory, and Mlle. Louise can name it by the exclusive use of her eyes, even four or five days after a first trial.

I have no doubt that education, which has to be commenced for her, will complete the use of vision, aided by the ideas the so highly developed sense of touch will give her.

I regret that the hurried departure of my patient, who was impatient to return to her parents, did not permit me to follow out and complete the study of her case. A. M. CADE, D.M.,

A Bourg Saint Andreas (Ardèche).

LETTER ON SOME POINTS OF MILITARY SURGERY.

[Addressed to Prof. FRANK H. HAMILTON, of Brooklyn, N. Y., by USHER PARSONS, M.D., of Providence, R. I., and read before the Rhode Island Medical Society, Dec. 19th, 1860.]

DEAR SIR,—In reply to your inquiries as to the result of my experience in naval and military surgery, particularly as to ventilation, clothing, &c., I have to state that two or three of the points you allude to were strongly impressed upon my mind, which I will

now refer to; and first, in respect to *ventilation*. In the battle of Lake Erie, on the 10th of September, 1813, nearly a hundred were wounded—sixty-one of them on board the *Lawrence*, twenty-three on board the *Niagara*, and about a dozen in the smaller vessels. There were eleven cases of compound fracture, besides simple fractures, many gun-shot wounds and extensive lacerations; and among them all several amputations were required. Those wounded on board the *Lawrence* were ranged on the upper deck in the spaces occupied by the cannon and gun carriages, which were removed from both sides of the deck to afford room for mattresses. The only shelter over the wounded thus lodged was an awning that served to screen them from the sun, and tarpaulins and canvas to spread over and shelter them when it rained.

To the wounded of the *Lawrence* were added, *after two days*, those of the *Niagara* and of the small vessels. The whole number of patients, requiring a recumbent posture on the deck, was about fifty. They remained in the ship fourteen days after the action, and were then landed at Erie and lodged in a large unfinished court-house, and remained there until cured. Of the ninety-six wounded only three died, and these were cases of so severe a nature that a surgical operation was not deemed justifiable, and they were left to linger out a few days of misery. This entire success I have ever felt warranted in ascribing to the purity of the air, more than to any other cause.

Secondly, another cause of success worthy of special notice, was the *delay of severe surgical operations until the system was entirely recovered from the shock of the injury*.

Having sole charge of the wounded of the whole fleet (the other two medical officers being ill), and the wounded being passed down to me for aid faster than I could attend to them in a proper manner, I aimed only to save life during the action, by tying arteries or applying tourniquets to prevent fatal hæmorrhage, and sometimes applying splints as a temporary support to shattered limbs, and in two or three instances small portions of flesh were divided which held a dangling limb to the great annoyance of the patient. In this state the patients remained until the following morning, under the free use of cordials and anodynes. At sunrise I began amputations, and in the course of the whole day and evening was able to finish all operations and dress at least once or twice, and to do justice to them all. On the following day, I visited the other vessels and brought all the wounded on board the *Lawrence* and treated them in like manner. Now as all but the hopeless cases recovered, it was proved satisfactorily that the delay of amputations and other severe operations for one and even two days had no unfavorable effect upon the chances of recovery. Probably some lives were saved by it which would have been lost had the operations taken place on the day of the injury. I am, however, ad-

vancing no new doctrine in this matter, but only adding facts strikingly illustrative and confirmative of its correctness.

A third cause of success in this action, was the plentiful supply of fresh provisions and vegetables, brought to the fleet from the shores of Ohio, and a generous supply of wine and other cordials.

Fourthly, there can be no doubt that cheerful and buoyant spirits, occasioned by victory, contributed not a little to recovery.

In two other actions I saw much to confirm the foregoing opinions. In an attack on Mackinac, the following year, by Col. Croghan's small army, transported thither in our vessels, the number wounded was less than half that above detailed. Our vessels were crowded with troops, and afforded no suitable lodgings for patients. The air became foul. Diet mostly salt meat, with no fresh vegetables, and added to this was defeat in the enterprise, for we were repulsed. Consequently, the wounds acted unkindly, and some died that under more favorable circumstances might have recovered.

In a third action, opposite Black Rock, near Buffalo, nearly a hundred sailors crossed over the Niagara in a cold night, late in November, for the purpose of taking a battery by storm, preparatory to the crossing of General Smyth's army to take Upper Canada. The sailors succeeded, with the loss of six or seven officers and men killed and thirty wounded. The distance across the river was about one mile, and the wounded were much chilled while returning in an open boat. The apartments for receiving them were very small and ill ventilated, but this was slightly remedied by keeping up a wood fire, which served to establish a current of fresh air from without. There were extensive suppurations, and some deaths of such as under favorable circumstances might have been saved.

You inquire the result of my experience in amputation for tetanus. It is decidedly against it. I have amputated twice without any benefit. The disease, in fact, is seated in the spinal cord. Actual cautery over this, with an iron brought to a white heat, is reported to have allayed the spasms in some cases, but I have seen no case of successful treatment of an established tetanus. For prevention, after battle, of traumatic tetanus, I deem it of great importance to graduate the covering or clothing of wounded patients according to the temperature of the air, hot days succeeded by cool nights having been found the most productive cause of tetanus.—*Communications Rhode Island Med. Society*, 1861.

Army Medical Intelligence.

TWENTIETH REGIMENT HOSPITAL ARRANGEMENTS.—At Camp Massasoit, Readville, near Boston, is one of the schools of military instruction authorized by the State. Dr. Dale, Mass. Surgeon General, lately

visited the 20th regiment there, and found the medical department so well arranged that it is said he intends referring surgeons of other regiments to it as a model Hospital. The regiment is under the command of Col. W. Raymond Lee; Dr. Henry Bryant, of Boston, is Surgeon, and Dr. Nathan Hayward, of Roxbury, Assistant Surgeon. The hospital is secluded, well ventilated and lighted, with comfortable couches, and the best of nursing. The health of the regiment is excellent, and this is doubtless in great part owing to the good management of the culinary department. Through the long range of kitchens neatness and order are everywhere apparent. The principles of house-keeping are taught the soldiers, who are required every morning to air their bedding and sweep out their tents, and to strike the latter every third day.

[Dr. O. Martin, Surgeon of the 3d Battalion of Rifles M. V. M., reports as follows respecting the cases of sickness in that Battalion.]

The Third Battalion of Rifles of the Massachusetts Volunteer Militia, after stopping at Annapolis till the road to Washington was opened, landed at Fort McHenry on a cold, rainy, snowy morning, the third of May. The privates had to make a floor out of wet boards to cover the brick barn floor, on which to sleep that night.

The fort was under the command of Major Morris, a tough, efficient, but not the most sensitive of officers, who had spent much of his life under the hardening influence of a frontier service in Minnesota. The hospital and garrison were under the medical care of a highly educated, gentlemanly physician, who had been ordered to this place by the government, and who arrived the same day as our battalion. This physician did much to mitigate the severity of the discipline of this hardy, well meaning old soldier, who saw clearly the necessity of mounting those guns, but could hardly be expected to understand how dangerous to the health it would be to put the young men from lawyers' offices, banking houses, counting rooms, stores, and mechanics' shops, so early in their military lives, on the same number of hours of fatigue duty as were given to soldiers old in the regular service.

These patriotic young men worked with a will and a vigor that pleased and surprised the old veteran. He said that he did not believe the same amount of work had been done in the same length of time by any equal number of men, as had been done by this battalion, in the whole federal army.

But this tremendous tax on their unused strength began soon to tell on their health, so that while we find up to May 17th only eight or nine sick in hospital and in quarters, by May 31st the list was swollen to thirty, and by June 26th the figures had increased to the incredible number of forty-eight, and so continued for several days. One man out of every six men was sick. Although the quarters were thoroughly cleaned, we found no diminution of disease till the excessive fatigue duty was closed.

From May 10th to June 1st, we find on the sick report:—14 cases reported of bad colds, 12 debility, 17 diarrhœa, 10 neuralgia, 5 rheumatism, 1 typhoid fever, 55 of all other diseases. 114 total in May.

From June 1 to July 1—6 cases bad colds, 9 debility, 60 diarrhœa, 65 typhoid fever, 12 neuralgia, 9 rheumatism, 43 of all other diseases. Total in June, 204.

From July 1 to July 29—81 cases diarrhœa, 3 dysentery, 31 typhoid fever, 4 rheumatism, 6 debility, 1 inflammation of the tonsils, 63 of all other diseases. Total in July, 159. Making in all 477 cases of disease prescribed for in less than three months, from a force of but a trifle over three hundred men. In three months we find put down among the diseases 97 cases of typhoid fever. Two of these died, one from bleeding from the bowels in a constitution so broken down with disease that the blood would not coagulate, and of course could not be stopped; the other from uncontrollable diarrhœa.

We find, also, twenty-seven cases of debility from fatigue, that only wanted time to cure, and many others whose developments it was necessary to await before any scientific treatment could be adopted. As treatment and medicine cost nothing to the sick, it would not be strange that inexperienced young men should desire more than was for their good.

On our arrival the wells were stagnant for want of use. The fort is enclosed on three sides by water, containing the wash and filth of the city of over 200,000 inhabitants. The militia have not been called out since 1812, and much confusion and difficulty arose from there being a commander and surgeon of the fort, who took precedence of those of the battalion. The surgeon of the third battalion had no rights while within the garrison save those conceded him by courtesy, which limited his powers and his responsibility, and many things occurred, unavoidably, that he would have wished differently.

But the curse of military life is whiskey—not poor whiskey, or poisoned whiskey—but alcohol in some form. And it kills more than rifles, cannon, or sabres. The regiment that would prohibit it, both among its officers and its men, would save a vast amount of annoyance and disease.

[We are sorry that an army regulation recently made renders it impossible for us to publish several extremely interesting letters from the seat of war. Of these we have seen one from Dr. Luther V. Bell, one of the Massachusetts Brigade Surgeons, which gives a stirring account of the late conflict. Dr. Bell, it will be remembered, distinguished himself in the battle of Bull Run for courage and skill under circumstances of the utmost peril.

In place of this, we copy from the *Medical Times* a letter from Dr. Hamilton, to whom the regulation above referred to does not apply, and which our readers will find not without interest.]

I have had no time to write to you before, and I have scarcely the time now, but I have seized a few moments of leisure to give you a brief account of one day's experience upon the field of battle.

At half past two, Sunday morning, I was in my saddle, with my assistants by my side, and my ambulance was ready for the march. The column began to move at this early hour, but our Division, under General Miles, did not leave the encampment until after six o'clock, A.M. We then followed the long train which had preceded us, and after a march of about three miles took up our position where the battle of the preceding Thursday was fought, upon the brow of a hill commanding a view of the whole valley in which lay the forces of the enemy. The 32d and 16th of the New York Volunteers were ordered to support Lieut. Pratt's battery, Col. Pratt, of the 31st, acting as Briga-

dier-General or commanding officer, while Lieut.-Col. Brown took charge of our own regiment, the 31st; subsequently Col. Pratt took charge of his own regiment, and was ordered to support Major Hunt's battery.

As soon as the troops were fairly in position the batteries opened upon the enemy with shell, solid shot, grape, and canister. Their fire was very effective, but it was not answered until late in the afternoon. In the mean time my assistants aided me in selecting a place along the wood, in our rear, where a pretty deep cut or gorge, leading a little off from the main road, would enable us to dress the wounded without exposure. We all went to work with a will, with the help of the drummer boys, and had soon cleared the gorge of stones and bushes. Here we proposed to have the wounded brought on stretchers by the drummers and a few volunteer aids, who together composed my ambulance corps. We then placed our ambulance above and beyond the gorge, in the direction towards a log-house, which was situated one-quarter of a mile further off in the rear. We took down the fences to let the ambulance pass, and planted our red flags at the temporary depot, and at the log-house. We were all ready when we received notice of an expected charge of cavalry upon that road, and were requested to select a building on the opposite side of the road, as the enemy's batteries would range across the old log-house. Accordingly we hastened to make the change, and in a few minutes we had everything as well arranged in a snug wooden house, occupied by negroes, as if we were in Bellevue. The operating table was ready, the bed arranged, and the instruments, sponges, bandages, cordials, &c., in order.

I now rode back to the field, and found we had had one slight skirmish, in which one man of the 16th had been wounded in the head, which Dr. Crandell, of the 16th, had already dressed. It was past mid-day, and we were all tired, hungry and thirsty. Exploring a garden in front and to the right of the batteries, I found cabbages, beets, parsnips, onions, sage and potatoes; near by were chickens, and smoked hams in a deserted lodge. Water we found one quarter of a mile to the left on the borders of the woods, within which lay the enemy, but the drummers brought water, and with the help of Mr. Nourse, Dr. Marvin, and my son, we soon made about four gallons of the best soup I have ever eaten. We had salt and pepper to season it, and good appetites to welcome it. We made also a large coffee-pot full of coffee, and found sugar to sweeten it. This we carried to the rear, and fed out first to the colonel and his staff, and then to the line officers and men, as far as it would go, not forgetting ourselves and the drummer boy.

After this precious repast we carried whiskey to those soldiers who had been skirmishing, or who seemed especially to need it; for they were without shelter, under a sky of brass. To those who called for it also we sent or carried water in pails—such water as we could get. The men never left their lines, except when ordered to act as skirmishers, and must have perished except for some such refreshments.

At about four or five, P.M., a message was sent to us that the enemy were retreating, and that the day was ours, and I immediately returned to my hospital to order, of the black inmates of the South, supper for the Colonel's staff and my own. I was standing at the door, looking out towards the road, when I saw the regiments ap-

proaching in order, but rather rapidly; at the same time came an order from Dr. Woodward, the intelligent and faithful medical director of our division, for me to fall back with my hospital to Centreville, about one mile further back, as the enemy were making an attempt to flank us on the left, in the direction of our division. I immediately had everything replaced in the ambulance, and having paid Maria, the black woman, whose dinner we did not eat, we started for Centreville. We went along the same road with the troops, who were moving in good order, and without any appearance of alarm. At Centreville I took out my amputating case, general operating case, and medicine chest, and finding a large number of wounded already here, proceeded at once to dress their wounds, extract the bullets, &c. We were occupied for an hour or more in an old tavern. My assistants here were Dr. Lucien Damainville (first assistant), Dr. — Brown, Mr. Marvine, medical student, Mr. Nourse, and my son Frank, who had been acting most of the day as the Colonel's aid. I think Dr. Arnt, of one of the Michigan regiments, was with us at this time. We had no bandages, no lint, no sponges, no cerate, and but very little water, and I think only one basin. Our first attention was directed to those already in the house. Stooping down as they lay crowded upon the floor, we inquired, "Where is your wound, my poor fellow?" for they seldom called us until we came to their relief, nor did many of them utter a moan. There they lay silent, waiting their turn. Most of the wounds were made by spherical balls—some had gone through entirely, without breaking a bone or severing an artery—and to them we said, "Bravo, my boy, a noble wound, but no harm done. Mr. Nourse, apply a cloth, wet with cool water." Not a few, encouraged and strengthened by these words, got up and came on foot to Alexandria and Washington. I saw several at Fort Runyon, from whom I had extracted balls from the neck, arms and legs, the next morning when I arrived there, and they had walked the whole distance. Three or four had balls through their bodies, and had walked two or three miles to the village; one was brought up with a wound in his thigh, who had lain on the field since the Thursday preceding. He will recover, I think.

From this building we went to a private house, which was also full, and then to the old stone church. Here I met Dr. Taylor, of the 1st New Jersey Regiment, who was laboring most industriously, and Dr. —, a private, a very intelligent man, belonging, I think, to the 2d Michigan; and who, for his extraordinary zeal and attention, deserves great credit.

In the old stone church the men were lying upon every seat, between all the seats, and on every foot of the floor; a few on stretchers, perhaps three or four; a dozen or more on blankets—occasionally upon a litter, hay or straw, but mostly on the boards.

The scene here was a little different; it was dark; we had but two or three tallow candles. The men had been waiting longer, and were in general more severely wounded; and, although a man now and then asked us to pass him, and to look first after some one lying near who was suffering more, yet from all sides we were constantly begged and implored to do something for them. After a little while we concluded to take them in the order as they lay, since to do otherwise rendered it necessary to consume time in going backwards and forwards, and we were constantly in danger of treading upon the wound-

ed ; indeed, it was impossible to avoid doing so. By this time we had found a hospital knapsack, and were pretty well supplied with bandages ; but the time did not allow us to do much more at first than to extract the bullets, and apply cool water dressings, with lint.

Only two amputations were made by myself ; one below the knee, and one above the elbow-joint. Both of them, I confess, were done very badly ; but I could, at the time, and under the circumstances, do no better. My back seemed broken, and my hands were stiff with blood. We still had no sponges, and scarcely more water than was necessary to quench the thirst of the wounded men. My assistants were equally worn out—Dr. Taylor alone seemed vigorous and ready for more toil.

At half-past twelve, or about that time, we went out to get a candle to enable Dr. Taylor to amputate a man's arm at the shoulder-joint. Just then a regiment came up, and the Colonel was challenged by the picket. This reminded me that if we were to stay all night, as we had mutually agreed to do, we should need the countersign ; but although we told him we were medical men, in charge of the wounded, and intended to stay, this was refused to us. The Colonel told us that his was the last regiment covering the retreat.

We obtained a candle and went to the house where lay Dr. Taylor's patient, with his arm terribly shattered with a cannon ball or fragment of a shell. It was nearly torn off near the shoulder-joint, but the hæmorrhage was trivial. He was dying of the shock. We gave him whiskey, the only stimulant we had, with water, dressed the wound slightly, and left him to his fate.

Dr. Damainville and I now lay down upon our backs upon the floor beside the wounded—we could do no more—our last candle was burning. Some of us had seen all the wounded, probably 250 in number, and done for them all that lay in our power. I had drunk some butter-milk and eaten a sandwich that Adjutant Washburn had held to my mouth once in the evening, but none of us had had any other food. I had sent Adjutant Washburn to overtake Gen. McDowell early in the evening, and to represent our condition, but he could not find him, and returned without help. The two bottles of whiskey taken by my son from the ambulance when we first came were already nearly distributed to the wounded. They had not a morsel to eat, the ambulances had all gone and had been for several hours. As we went into the street again, we found it silent as the grave—the pickets even were gone, and except a few men so soundly asleep under the trees that we could not awaken them, there was no one left in the road. After a second consultation we determined to go also. My assistants and myself soon found our horses, but the servant was gone, and with him the bridles, nor could we after much search and loud and long shouting find him. I went back to the old stone church, and found one soldier just brought in, whose wounds I dressed, and then said aloud to the poor fellows within : “ Thank God, my boys, none of you are very seriously injured ; you will probably all get well.” To which I heard one or two feeble responses : “ Thank you, Doctor, thank you.” I could not tell them I was about to leave them, and I trust in leaving them so I did them no wrong. I could be of no more service to them until morning, and then I supposed they would be in the hands of a civilized and humane enemy who would care for them better than we could. As I passed along out of the village I requested one gentleman who lived

there to look after them, and also a family composed of a man and wife with two daughters. They all promised to do what they could.

Our instruments we could not take. There were five of us and two horses, and my son had sprained his ankle and could scarcely walk, so we went on towards Fairfax Court-House, and in half an hour we began to overtake the rear regiments, and soon I saw Dr. Woodward's cheerful face begrimed with dirt like our own. I told him how we had left the wounded. There was no remedy, said he. They must be left. We hurried on, and at Fairfax Court-House overtook Gen. McDowell, to whom I at once reported the condition and number of the wounded, and requested to be sent back if he thought it best. He replied, "You have done right, keep on to Washington." As I was leaving the gate he sent a messenger to call me back, and to ask me if I were walking. I replied that I was. "Gen. McDowell has here ten or twelve ambulances," said he, "for the wounded, which he obtained by a despatch to Washington. He wishes you to ride." From Fairfax I rode till our ambulance broke down, filled with wounded. The wounded were transferred to another ambulance, and I again took to my feet and occasionally to my horse. I reached Fort Runyon, opposite Washington, at about 10, A.M., and here washed my bloody hands and arms, for here I found the first water.

The wounded were scattered the whole distance from Centreville to Washington, not in large numbers, but here and there one could be seen walking by the aid of one or two associates. In reference to the ambulances, the occasion of their absence from Centreville was simply that the drivers became frightened, and to turn them back would have been impossible. Nor do I think it would have been possible for Gen. McDowell to have sent one vehicle back beyond Fairfax at the time I saw him.

It is remarkable that most of the wounds seen by me were not of a character which would be likely to prove fatal. Perhaps the men most severely wounded were left upon the field, or were dressed by those noble surgeons who were near them, and some of whom lost their lives, while others gave themselves up as prisoners.

In no case did a wound seen by me require the use of a tourniquet, although some soldiers had their limbs tightly girded so as to have already occasioned great swelling and pain.

Most of the balls extracted were spherical; and of those which I removed, the majority were removed through counter openings, the balls lying close against the skin.

Nearly all the soldiers that I have seen since the battle, in Washington and Alexandria, are doing well.

I must not omit to state that after I had left, and when I supposed our whole party were in front of me, Mr. Nourse, acting assistant apothecary in our regiment, went back with three horses, and placing three wounded officers upon them, sent them off, for which he would accept of no compensation. He then walked himself the whole distance to Alexandria. This, with many other signal instances of this young man's courage, endurance, and humanity, deserves an especial notice.

My own regiment having, under its excellent commander, Col. Calvin E. Pratt, of Brooklyn, N. Y., covered the retreat of most of the forces, and especially of Hunt's Battery, which took up a new position near Centreville early in the evening, left the ground at 11, P.M.,

and returned in perfect order to its old encampment near Alexandria. Before they left they received five successive volleys from the enemy's infantry, but not allowing their own fire to be drawn, they saved themselves and their own battery from being overwhelmed and taken. I must regard the coolness and discretion of Col. Pratt under these circumstances, as the highest evidence of his capacity as a military commander.

FRANK H. HAMILTON,
Surgeon 31st Regiment N. Y. St. V.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 15, 1861.

THE stirring events of the last six months few of our countrymen can have contemplated with indifference. Within that period we have seen a nation from a state of unexampled prosperity, not easily acquired, brought to the verge of anarchy by a contest the issue of which no one can at present discern. The recital of the bloody scenes of the battle-field, and the thousand and one tales of the terrible carnage always incident to civil conflict, have become familiar to all, and we are rapidly becoming wonted to the condition of war and the many evils consequent upon it. The influence of such a convulsion upon the nation at large, as well as upon every interest directly or indirectly dependent upon it, must of necessity be marked and lasting; but we are nevertheless warranted in the belief that, notwithstanding many of the consequences of so dire a calamity, much positive good will be result. A state of war is clearly providential, and hence must have been ordered for wise ends; and it may fairly be supposed that not the least of the benefits of such a political storm must be to clear away the moral and mental rubbish that is so apt to accumulate in prolonged periods of national peace, and from which spring those noxious weeds, which, if left to flourish unchecked, would prove far more dangerous to a nation's safety than the means instituted for their destruction. Of this nature are the various forms of heresy, medical as well as political, which in these latter days have increased to an extent hitherto unknown. It is in times of national prosperity, when comforts and luxuries most abound, that the mind seems prone to expand itself in vain and foolish speculations; and in a country like our own, where liberty almost to license is the rule, men are tempted to wander away from the broad gaze of the sun, lured by the uncertain and flickering light that dances in their own distorted and enfeebled imaginations. The experience of a thousand years is thrown aside to give place to the hallucinations of crazy enthusiasts, which in their turn give place to others, until the truth is entirely lost sight of, and men find themselves wanderers in dark and unknown regions. No surer remedy exists against such an evil than that whose operation we are beginning to feel.

Another indirect effect of the prosperity with which our country has been peculiarly favored, has been a diminished moral tone, which has expressed itself by undervaluing many of the choicest of heaven's

blessings. So wicked have men become, that the most sacred laws are violated without hesitation, to subserve some selfish end ; crimes have become not uncommon to which were attached, in better days, the most fearful penalties. A recent writer, in allusion to one effect of the present crisis, truly says :—" We, to whom life ought to have been at a premium, have been less conservative of this precious commodity than Austria (whom we have often undervalued and despised), where life is redundant. Life has been habitually disregarded and wantonly wasted. The suicidal and murderous practices which exist in the community of preventing and destroying offspring have obtained such a hold upon large portions of the people, as to rank among the conservative virtues. This perversion of both natural and supernatural virtue will probably undergo speedy correction. Boys will be wanted to defend their country, replenish decimated ranks, and cultivate the neglected soil. They will soon become valuable ; and the virtuous American matron, surrounded by a troop of fair daughters and stout sons, will not be reproached as a foolish person who has had a larger family than was convenient, but will be honored, as were the Roman and Israelitish matrons, for bringing forth and rearing children—the future life of the State." Surely, if the ordeal through which we are now called upon to pass shall accomplish nothing more than to correct a vitiated public sentiment in matters medical as well as moral, and bring men back to a just sense of their higher duties and responsibilities, it will prove a blessing rather than a curse.

VACCINATION AND RE-VACCINATION OF THE MASSACHUSETTS VOLUNTEERS. *Messrs. Editors*,—Several communications relating to the above important subject have appeared during the last month in your JOURNAL. These communications were in the form of correspondence, written by a physician of our sister city, Roxbury, then at Fortress Monroe. To these were added your timely and just criticisms, due, not only to the foresight and care of the Medical Bureau, the Medical Commission and the State Government, but due also to the services and abilities of the surgeons and assistant surgeons, either permanent or temporary, either volunteers for the time or now in the pay of the United States, attached for a longer or shorter time to battalions or regiments.

It is asserted, that at the time your correspondent's offer was made to the Governor of Massachusetts, the troops were not being, nor had they been properly protected by vaccination, even much less by re-vaccination ; and that the limited vaccination had been done with no method, or anything even in a *remote* degree approaching thoroughness, re-vaccination not at all.

In so far as the three months' volunteers are concerned, it is, as has already been stated by yourself, idle to find fault, when we consider the limited time which elapsed between the requisition of the President and the departure of the regiments from Massachusetts.

But the offer was made after the departure of the three months' regiments, and consequently your correspondent's remarks are aimed at the regiments raised afterwards, or rather at those which were in progress of formation when the offer was made. We are, however, obliged to protest in behalf of all regimental and battalion surgeons, who have held either previously or accepted commissions since the 17th of April, 1861, and who have had or still have the sanitary condition of our Massachusetts Volunteers under their charge, against your correspondent's insinuations and charges, that the limited vaccination had been done with no method, or anything even in a *remote* degree approaching thoroughness, re-vaccination not all. On the contrary, we would inform your correspondent that, long before *his* offer was made, at least three weeks before, the men of one military organization in this city—and perhaps others, also—expecting then to be called into the service for three months, were examined and re-vaccinated with method and thoroughness, and the vaccine matter to accomplish the same was furnished

with great readiness by the City physician, Dr. Jones, upon a requisition from the then existing Medical Bureau. We will give briefly the facts.

The nucleus of the 13th Regiment of Rifles was the 4th Battalion of Rifles, of this city, organized some weeks previous to the 19th of April from the Boston City Guard. By an order received from the Medical Bureau, all the recruits of the 4th Battalion were examined, to the number of 387, in all. Of these 387 men, every one had been vaccinated in childhood, and more than one had been re-vaccinated within eight years. All those men who had not been re-vaccinated were at once re-vaccinated, in the latter part of April; and after the Battalion was ordered to garrison duty at Fort Independence, the men were again, by orders from Headquarters, subjected to an examination, and those who had not previously, that is in April, been re-vaccinated, were subjected to the process and a record kept of the same. When the battalion was afterwards raised to a regiment, all the companies which were added were thoroughly inspected, man by man, with particular reference to vaccination and re-vaccination, and the case entered upon the rolls. So much for the 13th, at least, one of the very best of the Massachusetts Regiments. We have little doubt but that there are other regiments whose surgeons have been alive to their duty. * * * *

FORT INDEPENDENCE.

At an informal meeting of the Middlesex (Mass.) East District Medical Society, holden in Woburn, August 10th, 1861, Drs. William F. Stevens, William Ingalls and Alonzo Chapin were chosen a committee to prepare the following resolutions and present a copy of them to the family of the late Dr. Truman Rickard, and also to cause them to be published in the *Middlesex Journal*, *Woburn Budget* and *Boston Medical and Surgical Journal*:—

Resolved, That we regard with deep emotion the sudden decease of our associate and friend, Dr. Truman Rickard.

Resolved, That we recognized in him high professional attainments, an ardent love of science, and a systematic effort to faithfully and conscientiously perform all the duties incident to his profession.

Resolved, That we tender to the family of the deceased our sincere sympathy in their bereavement.

BOYLSTON MEDICAL PRIZE.—We are much gratified at being able to announce that at the annual meeting of the committee on the Boylston Medical Prize, held on the 7th inst., the prize of sixty dollars, or a gold medal of that value, was awarded to Dr. R. M. Hodges, of Boston, for the best dissertation on Excision of the Joints. Dr. Hodges is well known in our community as a skilful anatomist, and a surgeon of great promise, and all will feel that the prize has fallen to the right man. For the subjects for the prizes for 1862 and 1863 we refer our readers to the advertisement of the committee on the outside sheet of the JOURNAL.

APPOINTMENT OF BRIGADE SURGEONS.—The following gentlemen have been appointed by the United States Government Brigade Surgeons, from the State of Massachusetts, viz.:—Dr. G. H. Lyman, of the State Medical Commission; Dr. Luther V. Bell, Surgeon of the Massachusetts 11th; Dr. Peter Pineo, of the 9th; Dr. Henry Bryant, of the 20th; and Dr. O. Martin, of the 3d Battalion of Rifles.

THE SYLVESTER METHOD OF RESTORING SUSPENDED ANIMATION.—This process is frequently alluded to in English Medical Publications, and is, we presume, familiarly known in England. We noticed not long since that the Royal Humane Society had relinquished the Marshall Hall method for the resuscitation of persons taken from the Serpentine in a state of asphyxia. We find the process described in an admirable little work on Minor Surgery by Christopher Heath, F. R. C. S., just issued by Churchill of London, as follows.—

“Another mode (Dr. Sylvester’s) is to lay the patient on his back, and having pulled the tongue forward, to draw the arms slowly up over the head, by which means the ribs are elevated by the pectoral muscles, and inspiration is produced; the arms are then to be brought down to the side of the chest, which they are to compress in a slight degree. These movements are to be repeated as slowly as

in the other method (the Marshall Hall method), and it is said that they give a more complete charge of air to the lungs."

KEROSELENE.—Dr. E. Cutter, of Woburn, relates briefly in the *New York Medical Times* the effects of the new anæsthetic, keroselene, in some experiments with it upon himself and several other members of the Middlesex East District Medical Society. They came under its influence immediately, he says, and also recovered from it well. In his own case, he remained under its influence half an hour, and in one trial insensibility was complete. It has also been used externally by Dr. Ingalls, in neuralgia.

MILITARY HOSPITAL IN CINCINNATI.—A Military Hospital is in successful operation in Cincinnati, under the charge of Dr. W. H. Mussey, assisted by Drs. John A. Murphy and Charles L. Avery. More than 120 patients have been received and treated, only two of whom have died. Some sixty patients are at present under treatment. The Hospital has been supported by the voluntary efforts of the citizens, but it is supposed that the Government will take it under its charge.

Drs. T. J. Kearney and Goddard, of Cincinnati, have been appointed Assistant-Surgeons in the Navy, and have been ordered to the gun-boats at Louisville.

Gov. Yates, of Illinois, has appointed the following gentlemen an Examining Board for applicants for Surgeons and Assistant Surgeons to the Illinois Volunteers in the U. S. service:—Prof. H. A. Johnson, Chicago, President; Drs. Boyan (Sycamore), Davis (Paris), Roskoden (Peoria), and Wing (Collinson).

From reliable information received from the regiments enlisted in this city (Cincinnati), the Fifth, Sixth, Ninth and Tenth (all three years men), the health is remarkable. The Second German Regiment, *en route* for Washington, departed in excellent condition, leaving but five in the military hospital. This sanitary state is very remarkable when we remember that the troops have been exposed to great hardship.—*Cincinnati Lancet and Obs.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, August 10th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	57	69	126
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	57.9	47.3	105.2
Average corrected to increased population, . . . . .	..	..	117.29
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria
11	46	0	1	3	0	2	1	2

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.008	Highest point of Thermometer,	91.0
Highest point of Barometer,	30.142	Lowest point of Thermometer,	56.0
Lowest point of Barometer,	29.750	General direction of Wind,	W.S.W.
Mean Temperature,	71.5	Am't of Rain (in inches)	0.70

MARRIED.—In Wayland, July 26th, Dr. A. H. Bryant, of Natick, to Miss Abbie S. Damon, of W.

DIED.—At Capon Springs, Va., 28th ult., of dysentery, Dr. George P. Padelford, youngest son of Edward Padelford, Esq., of Savannah, Ga.

DEATHS IN BOSTON for the week ending Saturday noon, August 10th, 126. Males, 57—Females, 69.—Accidents, 3—*inflammation of the bowels*, 1—*disease of the brain*, 5—*inflammation of the brain*, 2—*bronchitis*, 1—*cholera infantum*, 46—*cholera morbus*, 2—*consumption*, 11—*convulsions*, 1—*cyanosis*, 1—*cystitis*, 1—*debility*, 1—*diarrhoea*, 3—*diphtheria*, 2—*dropsy*, 2—*dropsy of the brain*, 6—*drowned*, 2—*dysentery*, 2—*entero-colitis*, 1—*scarlet fever*, 1—*typhoid fever*, 1—*hæmoptysis*, 1—*disease of the heart*, 4—*infantile disease*, 1—*disease of the liver*, 2—*inflammation of the lungs*, 3—*marasmus*, 3—*old age*, 2—*premature birth*, 4—*rheumatism*, 1—*disease of the spine*, 1—*teething*, 1—*tumor of the stomach*, 1—*unknown*, 4—*whooping cough*, 3.

Under 5 years of age, 86—between 5 and 20 years, 6—between 20 and 40 years, 11—between 40 and 60 years, 10—above 60 years, 13. Born in the United States, 107—Ireland, 15—other places, 4.

THE

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HOSPITAL CONSTRUCTION.

BY FRANCIS H. BROWN, M.D., CAMBRIDGE.

[Communicated for the Boston Medical and Surgical Journal.]

[The following paper is based on a thesis, presented to the Medical Faculty of Harvard College. The thoughts contained in it were suggested by observations made at most of the hospitals of Boston and New York; by a year's residence at the Massachusetts General Hospital; and by the perusal of various works and articles, which the interest of this and allied subjects has recently called forth. In the collection of materials, the writer has availed himself freely of the knowledge of others, as exhibited in books and elsewhere. He trusts he has not failed in his intention of giving credit to all from whom he has drawn information. Entire originality in such a paper could hardly be expected. It has been suggested that some of the facts here collated might be found interesting at the present time, when more ample hospital accommodations, both civil and military, are being provided.]

The origin of hospitals is lost in the obscurity of the early ages of our era. The series of events which has led to their sanitary improvement is a matter of modern history. It is a subject which is of peculiar interest to our profession, and, if examined in all the minuteness of its melancholy detail, should be of interest to all.

The first hospitals are found in about the fourth century of the Christian era; but in those far back ages of the world, where history even becomes fable, and the early chronicles of the medical art are lost in the obscurity of romance—as far back as war and pestilence existed, and humanity, in hordes, fell before the Destroyer—so far may we look for the existence of these institutions. Hospitals for the relief of the sick are præeminently characteristic of Christianity. The early Greeks and Romans make little or no mention of them. Xenophon, Cæsar and Polybius, the first of whom considered it necessary to provide physicians to attend his army, fail to speak of hospitals for the reception of the sick and wounded. The commentators on these authors would lead us to suppose that such were treated in their tents, on the field. The first hospital of importance which we find mentioned, is that of Cæsarea, A.D. 307, which was richly endowed by the Emperor Valens. They are spoken of as common at the time of the Council of Nice, A.D. 325. The hospitals of Chrysostom are next in the

order of history, and, by the ninth century, we find that Rome herself contained as many as twenty-four. It would seem strange that so important and universal a matter as the institution of hospitals should so long have escaped the pages of literature and science.

When we look into modern history, we are still more surprised that the advancing intelligence of the world, the cumulated experience of medical men in the past centuries in the treatment of the sick, in all kinds of buildings, have not brought this subject more prominently to view. It has been left to us, however, by long and bitter experience, by the sight of hosts of humanity swept away by no other means than those arising from the utter neglect of hygienic measures, thus *to learn* to look in the right direction to stay the slow, but steady and sure march to the grave.

The subject of hospital construction is a *specialty*, and requires much more careful study than has at any time been given to it. Houses, built for the common purposes of dwelling, can never be used to advantage as abodes for the sick. There are certain principles which should govern us in choosing the site for a hospital; certain details to be carried out in the architectural construction, to render it capable of accomplishing to the utmost the design for which it was intended. To advance these principles has been the object of many distinguished men of the profession; and, directly or indirectly, of numerous devoted philanthropists out of the profession, for the last hundred years. It is for their labors in this direction, we are led to look with admiration on the names of Howard, of Elizabeth Fry, and of Miss Dix; our attention, too, is called to the various articles and papers from many English surgeons, both in the service and out; still more recently, the fearful experience of their Crimean war has called forth various reports and other papers from the War Department; and, last of all, the work of Miss Nightingale.

No one, who has had experience in the method of administration of various hospitals, can fail to have observed the difference in the effect of remedies, and the duration and termination of the cases. To the superficial eye, the disease and the treatment are the sole objects of notice. It requires more time and experience to go beyond this, and observe in hospitals of various forms and methods of administration, that conditions arising out of these varieties exercise a powerful influence on the real state of the patient. Hospital statistics will not always be of importance. Different hospitals receive different classes of patients; incurable cases may be discharged from one hospital to swell the black list of another; in different hospitals, patients enter at different ages and at different stages of disease. "Careful observers are now generally convinced that the origin and spread of fever in a hospital, or the appearance and spread of hospital gangrene and pyæmia, are much better tests of the defective sanitary state of a hos-

pital than its mortality returns; still farther, to the experienced eye of a careful, observing nurse, the daily, I had almost said hourly changes which take place in patients, changes which rarely come under the cognizance of the periodical medical visitor, afford a still more important class of data, from which to judge of the general adaptation of a hospital for the reception and treatment of the sick. One insensibly allies together restlessness, languor, fever and general malaise, with closeness of wards, defective ventilation, defective structure, bad architectural and administrative arrangements, until it is impossible to resist the conviction that the sick are suffering from something quite other than the supposed disease."* Shall we wait till some great mortality from such fatal defects forces upon us the unwelcome truth—until some war or pestilence stocks our wards only a little more fully than now, and so bring out more apparently the frightful evils? Shall we not rather look a little closer, even now—every day and every hour—and see the same forces, more slowly and stealthily, but as steadily and surely operating?

I start with these principia—abundance of air; abundance of sunlight; simplicity of construction. These are the essentials; without these no hospital can exist and perform its proper function in the community; and under these heads may be included all the minutiae of hospital construction.

A hospital should be so situated, as, at all times, to command a full and free amount of the purest air; so far beyond the limits of any city or densely populated place as to escape entirely its noise, dirt, confusion and other contaminations. The best locality would be some suburban village, which is high, airy and dry—preferably on rising land, certainly on a dry, porous soil, and by no means in the vicinity of any marsh or meadow, or of a cemetery. At the same time, it must be quickly accessible by some easy conveyance for the acutely sick and the wounded. It may be necessary to build in a city; let this never be done, however, unless under these conditions—the buildings never to be over two stories in height; and the situation to be one immediately contiguous to some large area as a breathing space. The hospital should, at the same time, occupy an entire square, and this be surrounded by wide streets. Unless the fundamental principles of hygiene be carried out, it is useless to erect a hospital. In hardly any institution is economy more lauded; it is *no* economy so to confine and fetter the bounds of such an establishment, as to defeat in the outset the very benefits which benevolence and munificence suggest. If the recovery of the sick is the object of the hospital, it is certainly impossible to accomplish that object under poor hygienic influences; and we cannot be surprised that the sick poor will much more readily seek admission to an institution where short recoveries are made.

* Nightingale—Notes on Hospitals, 1859, p. 3.

The best general plan is that of separate pavilions, placed either side by side, or end to end. The former plan is preferable, as it renders the whole work more compact, and diminishes the space to be passed over in going from one to the other.* The buildings should be so arranged as to form no angles one with another. It is a great mistake to suppose that, because buildings are erected round a court-yard, therefore they are airy enough. Every angle forms a cul-de-sac, with the evident effect of stagnating the air at that point. All such angles, therefore, are to be avoided.† The presence of large trees, too, in front of the windows should be foreseen and guarded against. All ground plans similar to those represented in figs. 1 and 2, and any modifications of these, should be carefully avoided. The simplest form of all is that represented in fig. 3. By such an arrangement as this, and with but

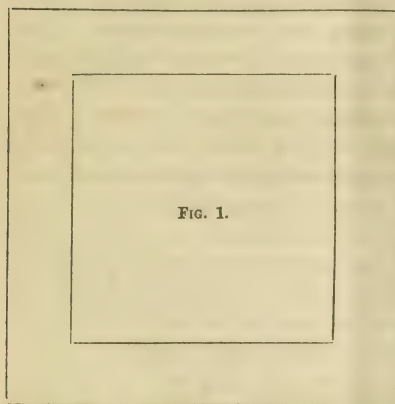


Fig. 1.

one building, only four wards—equivalent to two pavilions—could be obtained. For small hospitals, indeed, of not more than one hundred to one hundred and twenty patients, such an arrangement would be very well. By adding cross wings at the ends of the main building, additional space might be obtained. This would, however, have the ill effect of a closed angle, which would be of less importance in proportion as the wings were shorter. Were it essential to

have the building in the form of a hollow square, this might be safely accomplished by leaving the angles open, as is done in the Vincennes Military Hospital; though even this plan might be considered objectionable. The only proper method of enlarging the pavilion system to accommodate more than one hundred and twenty, would be to increase the number of buildings, extending them in a straight line; or to adopt the plan of Lariboisiere, at Paris. "In that

* Hospital accommodations in military service must of course be determined by the exigencies of the occasion under which they are required—flying hospitals, the tent, the hut, empty cottages, houses or churches, and the casemates of forts, according to circumstances—or, as in our present border warfare, the wounded may be conveyed back to the nearest large city, and all be subject to the judgment and decision of the medical staff. This article, however, refers only to *permanent* hospitals. I think the establishment of hospitals in the casemates of forts is to be deprecated. They are always damp, cold and close, and not at all suitable for rheumatism, dysentery, scurvy and other prevailing diseases of the service. If possible, the sick should occupy barracks in the centre of the enclosure.

† Quite in opposition to the view here expressed, is that of Dr. Hamilton, in his recent work on military surgery. "The quadrangular form, with an interior or court, is therefore the most objectionable, unless the quadrangle is composed of small, detached buildings. If not large, it may have the form of a square, but without the interior court. But for larger establishments, a building with a single front and two short retiring wings is to be preferred. When to the main building are attached, at right angles to the extremities, retiring or salient wings, all sides are left exposed to the winds. The stellate form is equally advantageous."—(p. 92.) While I agree heartily with his first sentence, the extracts from the remainder of the paragraph seem quite contrary to reason, and, in particular, a building in "the form of a square, but without the interior court," could have none but the poorest ventilation.

hospital, each block, containing one hundred and two sick, constitutes a separate hospital. There are six of these blocks, which

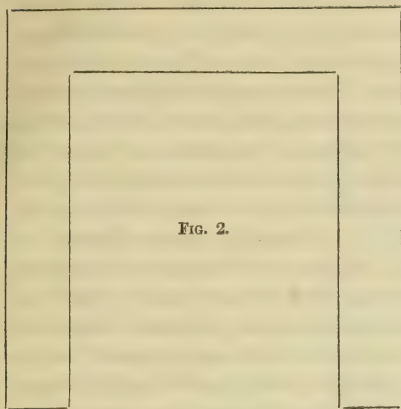


FIG. 2.

are arranged parallel to each other on the opposite sides of a square, and there are four blocks, containing the administrative and other offices."* The number and size of the buildings and certain details in their construction must, of course, depend on the class and number of patients treated.

In any case where two or more pavilions are constructed, if arranged parallel to each other, the distance between the buildings should be at least

twice the height of the side walls. If this plan is not adopted, both air and sunlight will be seriously interfered with. The grounds around should be laid out with graded walks, flowers, &c. The beneficial effects of such means on convalescents is incalculable.

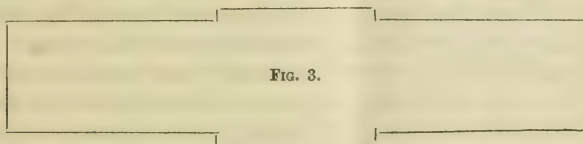


FIG. 3.

Second only to fresh air, I consider sunlight. Except in a few cases, it is a mistaken idea that the direct rays of the sun should be shut out from the sick room. All hospital buildings should be so erected that as great a surface as possible may be presented to the sun. For this purpose, in our vicinity, the axis of the buildings should be as nearly north and south as possible, that the sun's rays may shine fully into the wards from sunrise to sunset. Let, then, the window space be large. We shall find it very easy to shut out the sunlight by curtains and blinds; we can never form a sunbeam.

Simplicity, without complication, is essential in an institution desired to be conducted with economy and advantage. Every room should open into the entry or hall connecting with all parts of the building. Every *needed* room should be provided—at the same time every unneeded room should be omitted. We must remember that every closet or corner represents a place to be cleaned and will require hands to do it with—as well as an easy receptacle for any articles which carelessness or slovenliness may render desirable to get out of sight. Florence Nightingale says,

* Builder, for Sept. 11, 1853.

"Every five minutes wasted upon cleaning what had better not have been cleaned, is something taken from and lost by the sick."*

The classes of patients to be admitted will of course depend on the character of the hospital. Every city of the size of Boston should have suitable institutions for the care of the following, viz.:—All accidents; acute diseases, other than contagious ones; midwifery; delirium tremens; convalescents; chronic diseases; non-paupers, but poor; contagious diseases; insane; and the cases occurring during epidemics. A good classification for a *general* hospital would be to receive all cases of accident, all acute diseases except contagious, and such cases of chronic disease as may be ameliorated by treatment. The other classes should be treated in appropriate places. It will, then, of course, depend on the class and number of patients treated, what buildings shall be erected. Under all circumstances, the following general rules should be adopted. The offices of the attendant and resident officers, the dispensary, &c., should always be in the centre of the establishment; they will thus be most easily accessible to the largest number in the shortest time. If any contagious or noisy diseases are treated, they should occupy the exterior buildings; while the middle buildings are occupied by those acutely sick and those requiring the most attention. The kitchen and laundry must, under no circumstances, be in or under any of the buildings occupied by the sick, but at a little distance in the rear. If any portions of the buildings are devoted to private wards, they should be such as are the quietest and most secluded, and at the same time easily accessible to friends visiting the patients. The dead-house and autopsy room should form no part of any of the inhabited buildings, but be situated in the rear. The wards should all be connected with the kitchen and the dead-house by an underground passage; and all parts with the offices at the centre by means of bells and speaking tubes. I think, too, that in all hospitals, certain portions should be devoted to convalescent wards, of which I will speak presently. The matter of covered exercise grounds needs but a bare mention here, as it will receive more full notice farther on.

[To be continued.]

BIOGRAPHICAL NOTICE OF PROF. WILLIAM TULLY, M.D.

By HENRY BRONSON, M.D., OF NEW HAVEN.

WILLIAM TULLY was born at Saybrook Point, Conn., February 18, 1785. He was a descendant of John Tully, who came from England in 1647. His grandfather was an intelligent farmer. His parents, William and Eunice Tully, had but one child, the subject of this notice.

* Nightingale, p. 16.

Young Tully manifested, from an early period, a taste for books, which his parents indulged. Till the spring of 1801, he was sent to the public free school of his district. He was then placed under the charge of the Rev. Frederick W. Hotchkiss, of his own parish, who instructed him, first in English studies, and afterwards in Latin and Greek, preparatory to college. In September, 1802, after an "exceedingly defective preparation" (to use his own words), he was admitted to the Freshman Class of Yale College, where he was graduated in September, 1806. Throughout his academic course, he was embarrassed by his want of knowledge of arithmetic and mathematics, these branches of study having been wholly neglected in his preliminary education. This early neglect, and the poor proficiency which he regarded as its consequence, he had occasion to deplore throughout his life.

For five months, beginning in November, 1806, Mr. Tully taught the Oyster River district school, Saybrook. In the spring of 1807, he began the study of medicine with Mason F. Cogswell, M.D., of Hartford. In October of the next year, he went to Dartmouth College, Hanover, N. H., and for three months attended the public medical lectures of the celebrated Nathan Smith, M.D., who taught Theory and Practice, Surgery, Materia Medica, Obstetrics and Chemistry. At the close of the term, he returned to Dr. Cogswell's office; but in October, 1809, went back to Hanover to attend a second course of lectures. At the close of the term, he studied, for a time, with Samuel Carter, M.D., of Saybrook; but in March, 1810, entered the office of Eli Ives, M.D., of New Haven. While with Dr. Ives, he gave particular attention to Botany, laying the foundation for a general and very accurate knowledge of that science. In the following October, he was examined at New Haven, and received a license from the President and Fellows of the Connecticut Medical Society to practise medicine and surgery. The honorary degree of M.D. was conferred on him by Yale College, in 1819.

After receiving his license, Dr. Tully taught a district school for five months in Saybrook; but in May, 1811, went by invitation to Enfield, in this State, to practise medicine. He soon, however, was attacked with typhus, and on recovering, was summoned to attend his father in his last illness. He returned to Enfield in March, 1812, and removed thence to Milford in March, 1813. While in Milford, it is reported that he spent much of his time in the fields studying botany, his professional business being very limited. Dissatisfied with the place, he left it in November, 1816, and settled in Middletown Upper Houses, whence he removed in September, 1818, to the city of Middletown. While there, he published in 1820, in Silliman's *Journal of Science*, a medico-botanical paper "On the Ergot of Rye." He became the intimate friend of that learned and distinguished physician, the late Thomas Miner, M.D., of Middletown. The two, in 1823, published a volume

entitled "Essays on Fevers and other Medical Subjects." It consists of two parts; the first, purporting to be written by Dr. Miner, contains fifteen essays, the longest being one "On the Resolution and Treatment of Fevers." Some of these fifteen essays (not including the one named) are believed to have been furnished by Dr. Tully. The second part, by Dr. Tully, contains three papers on the Fevers of Middletown and Chatham, and one entitled an "Analysis of 'an Account of an Epidemic Fever of Virginia, by John L. Miller.'" There were unity of purpose and harmony of views on the part of the authors, and the book throughout is written with decided ability. It contained new and startling opinions, enforced by a strong array of facts and arguments, and was like a bomb-shell thrown into the camp of the profession. It treated old and cherished prejudices, and the current methods of practice, with little ceremony, sometimes with caustic severity. The authors maintained that the fevers of the day had decidedly typhoid tendencies; that anti-phlogistic and reducing measures were contra-indicated; and that a free use of stimulants, such as brandy, opium, cinchona, cantharis, capsicum, &c., was required. Opinions as to the merits of the work, which was extensively read, were divided. A controversy concerning the nature of the prevalent fevers, and the comparative excellence of the new and old practice, was begun in this State. It lasted for several years, and was not always conducted in the most tolerant spirit. As a consequence, a prejudice was engendered against the authors of the book, which neither survived. But whatever opinion we may entertain as to the soundness of the views put forth in the volume, there can be no doubt about its substantial value. It is one of those books which will bear to be read more than once.

In June, 1822, Dr. Tully removed to East Hartford, where he was residing when (in July, 1824) he was appointed Professor of Theory and Practice in the Vermont Academy of Medicine, Castleton. He accepted, and in January, 1826, went to Albany and formed a professional partnership with his Castleton associate and intimate friend, Alden March, M.D. Here his business was prosperous, more so than it had ever been before. He spent term time in Castleton, and in 1829 and afterwards, discharged the additional duties of lecturer on *Materia Medica* and Therapeutics, giving two courses in the year. In 1835, a spring term was added to the autumnal. He continued his connection with the Vermont Academy till 1838, when he resigned.

While residing in Albany, Dr. Tully published in the January and April numbers of the *American Medical Recorder* for 1828, his "Medical Prize Essay" on *Sanguinaria Canadensis*. It is a paper of eighty-four pages, alike distinguished by original observation and thorough and elaborate medical scholarship. It may be pronounced one of the most important contributions to our vegetable indigenous *materia medica* which has yet been offered to the public.

In 1829, Dr. Tully succeeded Eli Ives, M.D., as Professor of *Materia Medica* and *Therapeutics* in Yale College, and in May, 1830, removed his family to New Haven. The different periods of the year in which the terms were held, enabled him to continue his lectures in Castleton. During his residence in New Haven, everything for a time seemed to move on satisfactorily. His distinguished reputation secured him many friends and a reasonable share of professional business. In January, 1832, he published in *Silliman's Journal*, "*Results of Experiments and Observations on Narcotine and Sulphate of Morphine*," a valuable paper of seventeen pages. This article was republished in the *Boston Medical and Surgical Journal*, together with certain additional matter. Several other communications on articles of the *Materia Medica*, from the same pen, appeared in the last named Journal, during the same year, 1832. In 1833, he was invited to a professorship in the Medical College of South Carolina, which he declined.

Dr. Tully's last course of lectures was delivered in New Haven in the winter of 1840-41. Soon after he resigned. Subsequently he spent nearly a year in South Carolina, without his family. In the spring of 1851, he removed to Springfield, Mass., where he died, February 28, 1859. His remains were interred in the Old Cemetery, New Haven, by the side of his wife and several of his children. His wife Mary, a daughter of the Rev. Elam Potter, of Enfield, Conn., an excellent woman, though a great sufferer from ill-health, died September 8, 1853. They had ten children, three of whom, two daughters and one son, survived their father.

While residing in Springfield, Dr. Tully gave to the world his great work entitled "*Materia Medica or Pharmacology and Therapeutics*," in two thick volumes. On this, his reputation as a medical scholar must finally rest. We owe its publication to the enterprise, perseverance, and unselfish devotion to science, of Jefferson Church, M.D., of Springfield. Dr. Church assisted in the preparation of the manuscript, superintended the printing, and assumed the entire pecuniary responsibility of the undertaking. The work loses much of its value in not being completed according to the original plan. As it is, in its present incomplete form, with its many serious defects, literary and other, it does not do full justice to the author. Its imperfections, however, are all forgotten by him who has the courage to read it and the capacity to understand it. It is, indeed, a monument to the industry, learning and ability of the writer. Enough may be got out of it to furnish capital for a score of ordinary authors. It is not calculated to be popular; it is too much a work of principles and classification. But let it be once mastered, and it will richly repay whoever has made it a study. Whether or not the reader yields his assent to all its theoretical and practical views, he cannot but acknowledge the genius of the writer, his profound knowledge of medicine, and the importance of his labors for its advancement.

Dr. Tully was doubtless the most learned and thoroughly scientific physician in New England. If his equal may be found anywhere, I am ignorant of the fact. He had a large and costly library, and was a diligent and methodical student through life. His knowledge of botany was extensive and very accurate. Chemistry, particularly organic and pharmaceutical chemistry, he understood probably better than any one in this country. He was acquainted with physiology, and was familiar with the literature of those branches of his profession which he did not practise. Indeed, his studies took a wide range. He knew Latin and Greek well, at least so far as these languages are employed in natural science. And all his knowledge was singularly minute and exact. He assisted Dr. Webster and Prof. Goodrich in the scientific department of their dictionary, furnishing the definitions of the terms of Anatomy, Physiology, Medicine, Botany, and some other branches of natural history. Periodical and other current literature, including works of fiction, received a share of his attention.

Dr. Tully was an able and interesting lecturer. His tall, manly form, broad, square shoulders, large head and prominent eyes, served to fix the attention. He spoke distinctly and without gesticulation, reading from his manuscript in a loud, almost stentorian voice, with a uniform and slightly nasal tone, and assured air. The novelty and boldness of his views; his skilful elaboration; the vigor of his expressions; his merciless criticisms of authors; his sarcasms and denunciations, combined with a positive manner, secured the attention of all. His more enthusiastic pupils thought him the greatest man alive; hung upon his lips trustfully and gratefully, and pronounced all other teaching worthless in comparison. Some of his indiscriminating admirers not only adopted his opinions, but caught the peculiarities of his manner, and even imitated the tones of his voice. The younger students frequently complained that his matter was too scientific and his language too technical; but these complaints grew less frequent as the course of instruction advanced. His private pupils and chosen disciples were thoroughly trained, and in several instances have become distinguished scholars.

Dr. Tully was an intelligent and discriminating practitioner. He investigated his cases thoroughly, usually arrived at a correct diagnosis, drew inferences cautiously, and grounded his opinions on the facts before him. His unrivalled knowledge of *materia medica*, particularly indigenous *materia medica*, and his familiarity with all the new remedies, especially the new organic compounds, gave him a great advantage in prescription. His resources in a difficult case were, so far as I know, unparalleled. He was somewhat famous for the treatment of obstinate chronic cases—cases that had worn out the patience of others. Such cases were sometimes put into his hands by attending physicians for his exclusive management. And he not unfrequently succeeded in curing dis-

eases which had defied the skill of the ablest and best practitioners. He was fond of heroic medicines and heroic treatment, and incredulous as to many weak remedies in common use. Alcohol, morphine, quinine, strychnine, veratrum, arsenic and the like, were favorite articles; while he heaped unmeasured abuse on blood-letting, cathartics, antimony, the alkaline salts, and the antiphlogistic and reducing practice generally. But he was not indiscriminating either in praise or censure. In all cases and in every capacity, he was self-reliant if not self-sufficient, firm in the faith he had himself wrought out, discarding platforms, regardless of authority, and unmindful of clamor. When he had once formed an opinion, he was unyielding, sometimes headstrong, as strong men are apt to be. In his intercourse with his patients, he had a perpendicular way of doing things. His directions must be followed, and friends or nurses must not interfere. He would not stop to argue and explain, paid no attention to the whims and fancies of old women, and quietly took his leave when he thought confidence was wanting. For these reasons, he was not what is known as a popular physician.

In his intercourse with medical men, Dr. Tully was honorable and manly. He would not betray confidence; would not take an unfair advantage of a professional rival. Quackery, whether in or out of the profession, he despised. No doubt he had strong prejudices; was censorious and suspicious, possibly jealous. He was dissatisfied with the world; may have been tinged with misanthropy; but no act of meanness or low malice tarnishes his fair name. Most of his business, in the last years of his life, was in the way of consultation. He loved to meet his medical friends and discourse on his favorite topics. His conversations were in the style of monologue more than dialogue, and reminded one of his lectures or essays. He talked right on, as though compelled by the overflow of his ideas. Vexatious questions and interruptions annoyed him. In talking, as in writing, he was magisterial, exuberantly, if not ambitiously, learned, discursive and diffuse. He had a critical knowledge of words, and loved them, seemingly, for their own sake. An elongated word was, in his mouth, "sweetness long drawn out." If a man had three christian names and two titles, he would repeat them all. He had not the art of abridgment and condensation. I have heard his wit spoken of, but it seemed to me he had none.—I make these criticisms because they are necessary in giving a full-length, truthful portrait of Dr. Tully. Sum up all his imperfections, and deduct them from his merits, and there is enough left to make a man of—a whole man, and (may I not add?) a great man.

Dr. Tully was one of the most indefatigable of men. He was a diligent observer, orderly and systematic in everything, and never missed an opportunity to replenish his stores of knowledge. He carried in a pocket-book, made for the purpose, slips of fools-

cap paper (he called them octants), on which he wrote, at the time, whatever came under his notice. Whether he was reading or visiting a patient, conversing with a friend, riding or walking or sitting, his note book was always at hand. At short intervals, he assorted these notes, each having its running title, and put them away under proper general headings, as materials for his lectures, or for more formal essays. A very large amount of valuable manuscript, thus collected, is in the hands of his executor. He was eminently a matter-of-fact man, took delight in minute investigations; but in all his inquiries, his aim was to illustrate principles and discover general laws. In his mind was combined great love of detail with extraordinary powers of generalization—an unusual combination.—*Medical Communications of the Conn. Medical Society.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JUNE 24th. *Cancer of the Rectum.*—Dr. HENRY G. CLARK reported the case.

The patient was a man 50 years old, who had suffered for three or four months, as he said, from piles. He had bleeding, pain, and small, loose dejections. Shortly after entering the hospital he exposed himself to cold, and was attacked with a chill, headache and pain in the left wrist and shoulder. Redness appeared over the metacarpal bone of the little finger, and extended to the arm and shoulder. Delirium set in, followed by sinking and death. The rectum was rough, but not hard to the feel, and a fringe-like growth from the mucous membrane extended about three inches from the anus.

Dr. ELLIS observed, that at the autopsy the mucous membrane of the rectum was found to be destroyed over a surface about two inches in diameter. Rising slightly above the surface of the membrane around the margin of the shallow excoriation were short villous processes and loose shreds, floating up from the other portion of the diseased part. The new growth was of a whitish color, and quite soft. No hardening of the tissue beneath, but in the latter was a small abscess, without a well-marked limiting wall. The portions of the growth in the rectum examined by the microscope were found to be composed of very small elongated granular corpuscles, without nuclei or nucleoli.

JUNE 24th. *Alarming Effects of a large Dose of Essence of Checkerberry.*—Dr. W. E. TOWNSEND said he had been called at a late hour in the night to a woman who had been for some time in an insensible condition after drinking six ounces of essence of checkerberry. She was apparently in a sound sleep, but could not be roused. There was no stertor. The pupils were contracted. After being made to inhale the vapor of ammonia she roused sufficiently to take an emetic, which, however, did not operate, and she immediately relapsed into unconsciousness. After two hours, a powerful galvanic battery was ap-

plied, from the effect of which she vomited, but such was her condition that she was nearly strangled by the contents of the stomach lodging in the fauces. She then appeared to be sinking, but in the course of an hour showed signs of re-animation, and gradually recovered, having been insensible for ten hours.

Dr. ELLIS remarked that substances sold under the name of essences were often factitious.

Dr. BACON said that artificial essences were made to a large extent from compound ethers, which we might expect to be very active.

Dr. TOWNSEND said that the article taken by the patient was said to have been manufactured in Boston, of oil of checkerberry and alcohol.

Dr. HOOKER mentioned the case of a young woman who swallowed some toddy containing a large amount of oil of checkerberry. She soon became very stupid, and afterwards vomited. The result was a severe and very nearly fatal attack of gastritis.

JULY 8th. *Tuphlo-enteritis; Abscess of the Iliac Fossa; Necrosis of Ilium and Trochanter.*—Dr. STORER said he had been called to a man who was supposed to have rheumatism. He was emaciated, had diarrhœa, and complained of great pain in the back and hip, extending down the thigh. The right leg was drawn up. There was tenderness in the right groin, and afterwards fulness there, which, however, subsequently disappeared. Dr. Storer thought there was a formation of pus, in which opinion Dr. H. J. Bigelow, who saw the patient in consultation, agreed. The dejections were examined, but contained no pus. The man failed rapidly, and died.

Dr. ELLIS reported the autopsy. In the right iliac region was an abscess, which occupied the convexity of the ilium, and extended upward behind the lower lumbar vertebræ, and downward behind the trochanter major. The crest of the ilium and the trochanter were denuded and rough. The tissues forming the wall of the abscess were blackened. No disease of the spine.

The lower portion of the right edge of the omentum was adherent in the neighborhood of the cœcum, and the latter was firmly attached to the superior wall of the abscess, the appendix lying beneath it. The latter was bent at an abrupt angle about two inches from its commencement, and largely open, looking as if a portion of the wall had been destroyed. No foreign body was found.

In the adherent wall of the cœcum was an opening of considerable size, through which the thin, greenish contents of the abscess escaped on pressure. The absence of ulceration of the mucous membrane around, and the whole appearance of the opening, indicated that the perforation had taken place from without inwardly.

The other organs were normal.

We have here several lesions, and it will certainly be asked which was primary.

Bearing in mind that the crest of the ilium and the trochanter major were similarly affected, it does not seem probable that these distinct points would be simultaneously attacked in a person enjoying perfect health. Neither is it reasonable to suppose that periostitis, or superficial inflammation of the bone at one point, was the primary cause of the abscess, which afterwards extended and attacked the bone at a distance. If the abscess were, in one instance, the cause, it might, equally well, have been so in both. But, assuming this to be the case, we have other elements to consider, viz., the changes in the appendix

and cœcum. The character of the perforation in the latter, and the subsidence of the tumor a short time before death, leave no doubt that the abscess opened into the intestines at that time. The ulceration of the appendix remains. Taking into consideration the above particulars, the suddenness of the attack and the previous good health of the patient, and knowing that the appendix may become the seat of inflammation and perforation in the healthiest person, and finding in this lesion a sufficient cause for all those that accompanied it, we have a right to assume that tymphlo-enteritis was the primary disease. Viewed in this light, the case is remarkable for its duration, which probably may be attributed to the fact that the peritoneal inflammation was limited to the immediate neighborhood of the cœcum.

JULY 8th. *New Anæsthetic Agent—Kerosolene.*—Dr. BOWDITCH presented several bottles containing a liquid alleged to possess anæsthetic properties, and read the following letter from Mr. Joshua Merrill, of South Boston, describing it:—

“GENTLEMEN,—The article I now present for your consideration is from a class of volatile hydro-carbons derived from the decomposition of coal at low temperatures, which decomposition produces *liquid* products instead of prominent *gases*. The article before you is the most volatile of these liquids, carefully separated by distillation, and then purified by treating it with those chemicals which best remove all foreign organic matter from it. It is, I believe, the lightest, specifically, of all known liquids, its specific gravity being from 615 to 635, water being 1000 (ether being from 713 to 715). It is, I believe, chemically a pure liquid hydro-carbon. Just its equivalents of carbon and hydrogen I am unable to give; in fact, I believe it has never been subjected to analysis. I have presented this sample with the view of interesting the medical gentlemen connected with the Society, in its peculiar property of producing anæsthesia. My attention was first called to its anæsthetic power, by some of the workmen employed in its manufacture becoming partially or wholly insensible from inhaling its vapors. I have personally often been under its influence in a small degree—enough to produce peculiar lightness of the head, and weakness of the limbs. In all cases which have come under my observation, those persons who have inhaled it rapidly recovered when brought to the open air; in from ten to fifteen minutes perfect restoration ensues, and the men are able to resume their employment. It is, like ether, explosive when its vapors are largely mixed with atmospheric air; the liquid readily ignites, rendering care necessary when artificial light is used during experiments. Its cost is comparatively small—one dollar per gallon will, I think, furnish it in quantities. In conclusion, if I have brought to your notice a cheap and *safe* anæsthetic agent, my object has been accomplished, leaving to the Society those experiments necessary to establish its value, or otherwise.

I am, respectfully yours,

JOSHUA MERRILL,
Sup't D. K. O. Co.”

Dr. H. J. BIGELOW remarked, that in reference to any new anæsthetic, several points required consideration, and among these he would mention some in reference to the agent now submitted to the Society, and which he now saw for the first time. First, its efficiency; of this he was satisfied by the few inhalations he had just made from the bottle. He believed it as strong, at least, as ether. Second, it is

tasteless as water, while its vapor is in no way irritating. On the contrary, its flavor is agreeable, and resembles a dilute chloroform, with a whiff of coal tar or creosote. What is remarkable, this odor, which is quite evident as the fluid evaporates, leaves, when it is dry, not a trace, either of the chloric ether smell or of the creosote, being in this respect wholly unlike ether or chloroform. It is also abundant and cheap. It remains to be settled whether this agent is productive of headache and other unpleasant symptoms, like amylene, or whether it be, even in rare instances, fatal without warning, like chloroform. But this last is unlikely, inasmuch as the agent seems to be dilute, and not concentrated like chloroform. Nausea is, of course, a necessary accompaniment of certain cerebral disturbance. If this is an anæsthetic of the character it seems to be, at once effectual, agreeable, tasteless, without subsequent flavor or odor, it will supersede ether; and it has certainly, at this moment, a remarkable air of promise.

On motion of Dr. BOWDITCH, the new agent was referred to the Hospital Surgeons and Dr. BACON for experiment, and on motion of Dr. STORER, Dr. BIGELOW was requested to draw up a report on the results of their investigations.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 22, 1861.

KEROSOLENE.—It is but a little more than a month since this new anæsthetic was introduced to the medical public by a communication in our pages from the first professional experimenter of its powers, Dr. H. J. Bigelow, who, with the devotion of a true lover of science, made the first experiment upon himself. This was on the evening of the 8th ult., after the meeting of the Medical Improvement Society. Dr. Bigelow the next day reported the results of his personal experience with this interesting fluid, in anticipation of the fuller report of the Committee of which he is a member, in order that the medical public might at once avail itself of an agent which presents so many attractive properties. Already we see the fruit of this announcement in communications to various medical journals. Two weeks since, the *New York Medical Times* contained an interesting article by Dr. Cutter, of Woburn, detailing the results of experiments with kerosolene made by himself and other members of the Middlesex East District Medical Society, and expressing, on the whole, a favorable opinion of it. We find it occupying a large space in the *Chicago Medical Examiner* for August—so promptly do our professional brethren, even in this country of “magnificent distances,” seize upon anything which holds out any new promise of relief to the sufferings of poor humanity. In the *Examiner*, Dr. Dickinson gives all the facts in his possession concerning kerosolene and its first presentation by him to the profession through the Boston Society for Medical Improvement. In another article, Dr. E. Andrews, Professor of Surgery in Lind University, reports a trial of its anæsthetic powers, with a result much like

those given by Dr. Bigelow in the first experiments. As the report of the original Committee to whom the subject was referred is not yet given to the world, we re-publish an extract from Dr. Andrews's paper, feeling that every such experience is of weight in forming a just appreciation of the value of an agent of such power. We would express the hope that the Committee may not delay their report much longer, otherwise it will be anticipated by the results of individual observation.

"On the 19th of July, Dr. Dickinson, of St. Louis, called upon me and presented a can of the fluid, with a request that it might be tested. As there happened to be present at the moment a patient of the Chicago Dispensary, to be sounded for stone in the bladder, I determined to try the article at once. Accordingly, the patient was laid upon a sofa, and at my request, Dr. Dickinson commenced the administration. It was given by sprinkling upon a handkerchief in the same manner as chloroform, taking care to secure an abundant access of air. The patient seemed to take it with ease and comfort, and for several minutes everything went on well. The pulse was full, and somewhat accelerated, but it did not intermit or flag in any part of the procedure. At length the anæsthesia began to come on, when the countenance appeared flushed, and the eye a little unnaturally open and staring. In a short time the patient made an effort to rise up in a sitting posture, and was immediately attacked with moderate convulsions. The administration was discontinued until these effects subsided, and then carefully resumed, but the result was another attack of the convulsions. Again, suspending the inhalation until the muscular excitement ceased, a third effort was made to proceed, but this was also checked by a third attack of the spasms. Great as was my desire to test the article, I did not deem it prudent to persist in the face of such warnings, therefore, laying aside the kerosolene, the anæsthesia was finished with a mixture of ether and chloroform. No further convulsive motions occurred. Both the pulse and the respiration were well sustained during the inhalation of the kerosolene, the only exception being that during the convulsion a moderate check of the respiratory movement occurred, in consequence of the rigid contraction of the muscles of the chest. The result was a momentary dusky redness of the face at each convulsion, similar to that which occurs in epilepsy."

DR. JACKSON'S SECOND LETTER TO A YOUNG PHYSICIAN.—We take the following from an interesting and kindly notice of Dr. Jackson's second Letter to a Young Physician, in the last number of the *American Journal of the Medical Sciences*. "After referring with all charity to Dr. Holmes's "Currents and Counter-Currents," and speaking of the license which poets claim and receive as their prescriptive right, the writer continues:—

"Some such idea, we fancy, was in the mind of Dr. Jackson when he resolved to compose this letter; for, starting from a seeming acquiescence in the spirit of the lecture, and suggesting that Dr. Holmes was misunderstood by those who regarded him as denying the utility of our art, he proceeds to state the question 'whether the sick are more helped or hurt' by medicinal drugs? and then, after reminding us that some very eminent and very experienced physicians have been sceptical on the subject, he glides into a notice of the abuses in the employment of drugs and æcology of the sanitary powers of Nature. Having paid this tribute to courtesy and kindness, he exposes the fallacy of reasoning and the more than extravagance of statement in Dr. Holmes's lecture, and concludes that its arguing for the disuse on account of the abuse of medicines is neither logical nor wise. Indeed, he is convinced that his friend, Dr. Holmes, is of the same opinion; but, as if to leave him no pretext for not being so, he proceeds to enumerate some of the more striking illustrations of the value of drugs in the treatment of disease. Of mercury, antimony, arsenic, cinchona, and opium, he has much to say that corroborates the settled judgment of the profession concerning

their virtues, and as to the last he assures us that without it he would hardly be willing to practise medicine. Nor does he recommend these medicines in trifling doses. On the contrary, he recognizes circumstances which justify the prescription of mercurial preparations until the mouth is made sore; the emetic use of antimony at the commencement of typhoid fever is a method almost peculiar to himself, and one for which he claims very great value; he also advocates it in the forming stage of nearly all inflammations; ipecacuanha and squills he hardly subordinates to this potent remedy in appropriate cases, and adds that other medicines might be mentioned more or less similar to antimony, &c. Along with opium he classes conium, hyoscyamus, aconite, and the anæsthetics as having each its appropriate sphere of usefulness, and as to quinia, he is hardly behind the boldest of those who use it in heroic doses. As arsenic, he remarks, 'has a bad character with many, I feel bound to testify that it is as mild and gentle in its effects on the human body as almost any efficient medicine ever employed by us.' Iron he would not dispense with, nor bismuth, cascarilla, quassia, or cod-liver oil. Of cathartics, he remarks: 'It would seem that we could hardly live without the use of cathartics—they are necessary;' and of depletion he is not afraid to make the unfashionable remark, that 'the use of the lancet should not be altogether abandoned.' On the contrary, he prescribes it in the thoracic inflammations even of young children, and in the forming stage of acute diseases generally. In acute rheumatism, indeed, he does not recommend it, but employs a still more active and perturbative agent, colchicum, requiring it to be repeated every four or six hours, until it brings on copious discharges. Guaiacum he lauds in the subacute form of this disease. 'There are *many more* medicinal drugs, too good to be expunged from the list of the *materia medica*, which,' says Dr. J., 'I might mention. Among the more powerful of these are elaterium, digitalis, diluted hydrocyanic acid, and iodine;' and, among the milder drugs, 'spirit of nitric ether, the compound spirit of ether, the solution of acetate of ammonia, valerian, and assafoetida, old friends, whom I would not like to part with. The same may be said of mustard, the water of ammonia, croton oil, chloroform, and cantharides, for external use.'

"And this is a specimen of the *materia medica* of a physician who appears as the ally and champion of the witty orator who, after securing opium, 'a few specifics which our art did not discover, and it is hardly needed to apply,' (?) with wine and anæsthesia, would have us throw into the sea all the rest of the *materia medica* as now used,' if he were not restrained by a charitable regard for the health of the fishes! Well might Dr. Holmes exclaim, '*non tali auxilio nec defensoribus istis!*' But well may we rejoice that in his own calm yet authoritative way, Dr. Jackson should have furnished so perfect an antidote to the inconsiderate and incorrect estimate placed by his colleague upon medicine. Even more must we be gratified to find so able an advocate of the energetic treatment of disease at a time when many among us allow themselves to be ruled by the popular prejudice which an absurd medical heresy has engendered, and are tempted to withhold the active remedies, whose virtues were demonstrated centuries before globulism was invented, and barren scepticism, or mere *faintantise*, was dignified with the name of scientific expectation."

MEDICAL CADETS FOR THE U. S. ARMY.—Acting Surgeon-General Wood publishes the late Act of Congress in regard to the addition to the Medical Staff of the Army, of a corps of Medical Cadets, and states that applications must be made to the Surgeon-General at Washington. In addition to testimonials of good moral character and sound physical condition, the applicant must state the date and place of his birth, place of residence, period of medical studies, and enclose the certificate of the Dean of the College (or other satisfactory evidence) that he has attended one full course of lectures in a medical school. The following is a copy of the Act itself:—

"SECT. 7. *And be it further enacted*, That there be added to the Medical Staff of the Army, a corps of Medical Cadets, whose duty it shall be to act as dressers in the general hospitals and as ambulance attendants in the field, under the direction and control of the medical officers alone. They shall have the same rank and pay as the military cadets at West Point. Their number shall be regulated by the exigencies of service, at no time to exceed fifty. It shall be composed of young men of liberal education, students of medicine, between the ages of eighteen and twenty-

three, who have been reading medicine for two years, and have attended at least one course of lectures in a medical college. They shall enlist for one year, and be subject to the rules and articles of war. On the fifteenth of the last month of their service the near approach of their discharge shall be reported to the Surgeon-General, in order that they may be relieved by another detail of applicants."

GREAT ENDURANCE AFTER SEVERE WOUNDS.—Dr. A. B. Shipman, in a letter to the *New York Medical Times*, refers to the fact, observed by himself and other surgeons, that the wounds received by our troops in the late battle at Bull Run were, in a remarkably large number of instances, among the retreating regiments, unaccompanied by the severe results which are ordinarily produced by similar causes. So strongly was this impressed on his mind, that he makes the assertion that "an equal number of wounds of the same character in civil life, under the care of faithful nurses and skilful surgeons, and with all the appliances of civilization and luxury, could scarcely have done as well." The absence or disregard of physical pain was also striking—the faculties seeming entirely absorbed in the mental and moral causes in operation. He mentions two instances of wounded men walking 30 miles on foot, and without much suffering—one having had a musket ball pass through one thigh and nearly through the other, and wounding the scrotum, and in the other a ball had gone through the calves of both legs. Another reached Fort Ellsworth on Tuesday night after the battle, a Minié ball having passed through both cheeks, fracturing the lower jaw on each side and cutting the tongue nearly off, and he having eaten nothing since Saturday. His wound was dressed, and he was sent on to Washington. The rain to which many of the wounded were exposed on the day after the battle, in their retreat, was said to be a great comfort to them.

HEALTH OF PROVIDENCE, R. I.—During the month of July last, the number of deaths was 92, being 10 less than in July, 1860. Of this number, 49 were under 5 years of age. Cholera infantum was the cause of 11 of these deaths, and consumption of 17. Last year, in July, the mortality from cholera infantum, diarrhœa and dysentery was 30; this year, only 16. During the first six months of the present year, 882 children have been born in Providence—61 more than in the first half of last. During the same time, this year, there have been 470 deaths. The population of Providence being 50,666, the births and deaths stand as follows to the population: births, 1 in 57.4; deaths, 1 in 107.8.

HOMŒOPATHY RENOUNCED.—Dr. John C. Peters, of New York, late one of the editors of the *North American Journal of Homœopathy*, published in that city, has resigned his editorship, a valedictory from his pen appearing in the February number of that work. In this valedictory he does not speak of any recent change of views as the cause of his resignation, but says there are other fields of labor more congenial to his tastes; that he is and ever has been "opposed to all exclusivism and one-idea-ism" in religion, politics, science, and his much-loved profession, and that he has "always endeavored to incorporate in homœopathy all sound advances in medicine." The May and August numbers of that journal present us nothing further on the subject; but in the *American Medical Times* for August 17th, Dr. Peters publishes a letter in which he more fully states his position, and says, "I now most distinctly do not believe or practise according to any one medical dogma or exclusive system." He further says, that in commencing the study of medicine he had entertained the hope that "homœopathy, in its future and rational development, would supply all that was deficient in medicine;" but still he was not unmindful of the advances constantly making in regular practice. With regard to infinitesimal doses, he says he has never been a convert to the use of them; "they have been so repugnant," he adds, "to every fraction of common sense which I possess, that I have always felt absolutely degraded when making what I conceived to be necessary trials with them"; these trials, moreover, had never been attended with satisfactory success. So, too, with the dogma *similia similibus curantur*; "it seemed," he says, "so utterly opposed to reason, that it was often with difficulty that I could force myself to practise according to it." His letter concludes with the statement that hereafter, however painfully and reluctantly, he must endeavor to cast his lot "with other friends, other theories, and other practice."

MODE OF FORMATION OF THE RATTLE OF THE RATTLESNAKE.—At a recent meeting of the Boston Society of Natural History, the President, Prof. Jeffries Wyman, made the following communication on the mode of formation of the rattle of the rattlesnake.

"In the fœtal specimen examined, the scales cease toward the end of the tail, and the unscaled portion is covered by thickened cuticle, the rudiment of a rattle, which must fall off; as the animal grows, the last three vertebræ are covered with hardened cuticle arranged in ridges; as growth continues, this covering is displaced, a new layer forming underneath it, and the old slipped backward over one ridge in a manner not well determined; this is in turn displaced by a new layer beneath, pushed backward over a single ridge, and so on indefinitely. An interesting point yet to be settled, is, whether the cuticular caudal rings are set free at the time of moulting. That there is no definite relation between the age of the animal and the number of rattles, he said, was shown by specimens over six feet long having only two rattles, and others of eighteen inches with six or seven."

INJURIES CAUSED BY LIGHTNING.—Three cases are published in late numbers of the London *Lancet*, which go far to show that, contrary to the generally received opinion, metallic substances about the person are a protection, rather than a cause of danger, when individuals are struck by lightning. Dr. Duncan relates one case:—A lady had taken shelter under a large tree, the trunk of which was struck 100 feet from the ground, the bark being torn off down to about a level with the woman's head. The lightning then, leaving the tree, seemed to have passed around the wirework in the front of her bonnet, and thence down the steel plate in the front part of her stays, to her feet and into the ground. The skin of the forehead and face was blistered, the sides and front of her neck and chest charred, both thighs and knees burnt inside, and the right foot blistered, her under linen and shawl taking fire. Her arms, hands, abdomen, and legs from the knees to the feet, as well as her head and the back part of the body, escaped injury. She was rendered insensible, but was soon in a fair way of recovery.

Mr. Brent, the deputy coroner for Middlesex, gives the other two cases, which, it is remarkable, considering their similarity, happened within a fortnight of each other. The first was that of a man and his wife standing under one umbrella, beneath two elm trees. The husband, whose life was saved, says they were about leaving, and he recollected nothing more till he found himself lying by the side of his dead wife. The lightning had struck his neck on the right side, had passed along a metal watch-guard which he wore, blackening his right brace near it, to the watch, then to his right pocket and purse containing several gold and silver coins, indenting and blackening them, seared the right thigh, and emerged by a hole in his clothes above the knee. He was probably insensible about a quarter of an hour. His wife had no metallic substances in her dress, and the lightning had passed from her body to the ground through her right boot. Mr. Brent's other case was that of two men under an umbrella—a flash of lightning striking the ground near by, and seeming to glance thence towards them, causing them both to fall. The umbrella, with steel ribs, was shattered to pieces, and one of the men instantly killed, a brownish mark being observed from his head, which was greatly discolored, down the body to the soles of his feet, and his clothes were torn. He had no watch or watch-guard about his person, nor metallic substance in his pocket. The survivor had on a watch and a steel watch-guard, the latter of which is spoken of as being "completely destroyed," and along its course a black line was seen on the shirt. His lower limbs were paralyzed by the shock, and his boots torn to pieces. He soon recovered.

Letters from Mauritius inform us of the death of Dr. Maily, laureate of the hospitals of Paris, from the inhalation of chloroform. At the expiration of his service as interne, M. Maily went to live at the Mauritius, where he occupied a very honorable position. He was suffering from toothache for some days; he went to a dentist with a bottle of chloroform, which he administered himself. Upon a signal given by him, the dentist extracted the tooth; but very soon the operator saw that Maily was dead.—*La Revue Médicale Française et Étrangère*.

TIN FRACTURE SPLINTS.—For a long time we have been in the habit of using tin instead of wood for fracture splints. This material is so far superior to all others used for the purpose, that we are greatly surprised that manufacturers of patented splints have never adopted it instead of wood. It is lighter, stronger, far cheaper, and can be moulded into any desirable shape by the surgeon. Thus, as is often the case in compound fractures, it being desirable to have some particular part exposed, the surgeon may go to any tinner, and procure, at a trifling expense, the splints, with the necessary openings, which cannot be the case with the use of wood. Any tinman can easily make the splints, but few workmen can make them properly shaped of wood. We would particularly commend them to young practitioners, who may not be able to equip themselves with the more costly appliances, in the commencement of their practical careers.—*San Francisco Medical Press.*

ACTION OF THE POISON OF VENOMOUS SERPENTS ON THEMSELVES.—A memoir on this subject, by M. Guyon, was recently read before the French Academy of Sciences. The author had experimented with venomous serpents from Europe, Africa and America, and had come to the conclusion that the poison of these reptiles has no injurious effect upon themselves; neither upon the one which furnishes it nor the one into which it is introduced, even though the latter be of a different species.

We learn that Edward Hitchcock, Jr., M.D., son of President Hitchcock, has been elected Professor of Hygiene and Physical Culture at Amherst College, in place of Dr. Hooker. Dr. Hitchcock is a regularly educated physician, was the best gymnast of his class while in college, and appears eminently fitted in every way for the position.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, August 17th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	46	56	102
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	51.6	49.2	100.8
Average corrected to increased population, . . . . .	..	..	112.38
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria
12	37	0	3	3	0	1	0	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.110	Highest point of Thermometer,	79.0
Highest point of Barometer,	30.318	Lowest point of Thermometer,	48.0
Lowest point of Barometer,	29.740	General direction of Wind,	W.S.W.
Mean Temperature,	65.0	Am't of Rain (in inches)	3.12

BOOKS AND PAMPHLETS RECEIVED.—The Pathology and Treatment of Venereal Diseases: including the Results of Recent Investigations on the Subject. By Freeman J. Bumstead, M.D., Lecturer on Venereal Diseases at the College of Physicians and Surgeons, New York, &c. Philadelphia, Blanchard & Lea, 1861. —A Treatise on Diseases of the Joints. By Richard Barwell, F.R.C.S., &c. Philadelphia, Blanchard & Lea, 1861.—The Morbid Effects of the Retention in the Blood of the Elements of the Urinary Secretion. By William Wallace Morland, M.D. Being the Dissertation to which the Fiske Fund Prize was awarded, July 11, 1860. Philadelphia, Blanchard & Lea, 1861.—Transactions of the State Med. Society of Indiana.

MARRIED.—At Cambridge, 15th inst., Jeffries Wyman, M.D., to Annie Williams, daughter of B. D. Whitney, Esq.

DEATHS IN BOSTON for the week ending Saturday noon, August 17th, 102. Males, 46—Females, 56.—Accidents, 2—apoplexy, 1—disease of the bowels, 1—hemorrhage of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—cancer, 2—caries of bone, 1—cholera infantum, 37—cholera morbus, 1—consumption, 12—convulsions, 2—cyanosis, 1—cystitis, 1—debility, 2—diarrhoea, 1—dropsy, 1—dropsy of the brain, 3—dysentery, 1—bilious fever, 1—scarlet fever, 3—insanity, 1—intemperance, 3—gangrene of the lung, 1—inflammation of the lungs, 3—marasmus, 5—paralysis, 1—premature birth. 2—puerperal disease, 1—scrofula, 1—caries of the spine, 1—disease of the throat, 1—tumor, 1—whooping cough, 2—unknown, 1.

Under 5 years of age, 68—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 7—above 60 years, 7. Born in the United States, 84—Ireland, 15—other places, 3.

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No. 4.

CAMP DYSENTERY.

BY C. D. GRISWOLD, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

*Malarious Origin—Pathology compared with that of Malarious Fevers—
“Abortive” Treatment of Dysentery, &c. &c.*

DYSENTERY is the plague of the army. In hot climates it often proves more destructive to the life of the soldier than the enemy's projectiles. It is the foe the commander most dreads to see appear, for no skill in tactics, no advantage in position, or bravery of his forces, avails in the contest. With the appearance of dysentery in an epidemic form, the General is sometimes compelled to resign his command into the hands of the Surgeon, and wait events. It was this disease that decimated the French army so terribly in Egypt, the English armies in India, and our own in Mexico. Wherever large bodies of men are compelled to endure great fatigue during the heat of the day, sleep on the ground at night with only a blanket between them and the damp earth, and to cover and protect them from the dew and night air, there dysentery in its epidemic form is almost sure to appear sooner or later. The only other circumstances necessary to make it *certain*, perhaps, are a near approach to the tropics, or within them, and camping upon low grounds.

Cause of Dysentery.—Epidemic dysentery, it is believed by many systematic writers, has its origin in malaria. While in charge of the hospital as surgeon of the Panama Railroad Co. at Rujio Salgado, during the construction of that road on the Isthmus, I saw much of this disease, and was led from its behavior to regard it as essentially a malarious disease. During the rainy season, corresponding with our summer, when the men on the works were subject to drenching showers, and would go into their quarters, and perhaps lie down without taking off or changing their clothes, to awake in the night chilled by the cool air, dysentery became the prevailing disease. On the other hand, when drought prevailed, we had fever alone to combat. The treatment sustained fully

the malarious nature of the disease. Opium and its concomitant adjuncts had little control over the discharges, but if possibly they were stayed by such means, a chill would set in followed by fever, to arrest which, quinine would be administered and the patient would recover as though no dysenteric symptoms had preceded it; but such a course would protract the case through several days—a matter of great importance, not only to the patient but the Company, inasmuch as the average expense of each man was five dollars a day. Where ninety out of one hundred were taken down with either dysentery or fever, within two weeks after arriving upon the Isthmus, it became a matter of the utmost importance to return the sick to their work in the shortest possible time. To this end we soon learned that quinine was as essential in cutting dysentery short as it was in accomplishing the same end in the treatment of the intermittent and remittent fevers—thus sustaining the opinion as to its malarious origin, instead of regarding the fever as a complication, as some would have it.

During a residence of five years at Fort Hamilton, L. I., I had frequent opportunities for observing and treating dysentery. This district is perhaps one of the most pernicious localities for miasmatic fevers in the vicinity of New York, and here I found dysentery as readily cut short by quinine as on the Isthmus. In 1859, epidemic dysentery prevailed to a considerable extent in Batavia and the surrounding towns in Genesee Co., N. Y., where I then resided. It proved very fatal under the usual treatment, the patients sinking ultimately into a typhoid state. Here, as elsewhere, I found quinine would bring the hæmorrhagic discharges to an early termination, and establish convalescence. Here dysentery was associated with a severe form of remittent, usually called typhoid fever, and which without the administration of quinine in many cases proved fatal.

From these observations thus briefly sketched, of the behavior of dysentery treated with and without quinine, together with the fact that it is always associated with some form of miasmatic fever, I have become satisfied that the agency of malaria as its cause is unquestionable. Its sporadic existence is not more frequent or difficult to explain than that of intermittent fever.

Pathology of Dysentery.—Those who remember the papers I contributed some years ago to this Journal, know that I regard intermittent, remittent and yellow fever, as all having one common or malarious origin. Spring malaria produces intermittent; mid-summer malaria, remittent of a simple type; later in the season, gastric, bilious and typhoid symptoms complicate it, upon which may be engrafted the virulent malaria of yellow fever from southern climates. Such was the case at Fort Hamilton and Staten Island in 1856. But little intermittent had prevailed that spring, but in July a severe form of remittent set in, with marked gastric and bilious symptoms, upon which the yellow fever poison became

engrafted and proved very fatal, except in cases where quinine was promptly and largely given on the first remission. Now these diseases are produced by a poison developed from inanimate matter, and that only, and therefore not contagious in any sense of the term. The same law and conditions pertain to dysentery, and when we add it to the list, we have the principal malarial diseases grouped together.

Let us glance at the phenomena exhibited in the different forms of disease we have classed together as arising from a malarious origin. In simple ague—the type of all grades of fever—we have during the chill an exsanguinous surface, with engorgement of the lungs principally, and to a great degree suspension of the development of animal heat. In remittent fever, we find the lungs not so generally involved, but the liver, spleen and stomach take on the congestion from the receding venous currents. The symptoms are gastric and bilious, and the general constitution is more seriously affected. In that form of fever regarded by many writers as idiopathically typhoid, we have still less chill, with greater depression of the vital powers, and subsequent ulceration of Peyer's glands, indicating a still more deep-seated congestion in the early stages of the disease. In dysentery, the primary congestion or engorgement takes place near the terminal extremity of the intestinal tract—in the rectum and colon, and as these organs are not so important in nutrition, the constitutional symptoms are not usually so depressing or dangerous. In yellow fever, the primary engorgement involves almost every interior organ essential to organic life, especially the liver, stomach and intestinal tract. In extreme cases, unless the virulent poison of the malaria is early neutralized by quinine, the venous engorgement is not relieved, the vitality of the blood is suspended, and it transudes into the mucous cavities and is ejected from the stomach as black vomit.

A little careful reflection will show that in each form of disease referred to, the symptoms and constitutional effects are in perfect accordance and harmony with the lesion, and that their distinguishing characteristics are from local causes, rather than from any radical difference in the primary source—that dysentery is just as truly a malarial fever as intermittent, its widely different symptoms being the result of the lesion, or seat in which the malarial poison takes effect. Why malaria in the spring should take effect principally in the chest; in the summer in the liver and stomach; and in the autumn in the small intestines or lower bowel, is more than I can tell, but the length of time the surface which eliminates the poison has been exposed to the sun before it becomes sufficiently dry to generate the malaria, seems to have much to do with it. In the former papers referred to above, I endeavored to show that vegetable decomposition in no case generates malaria, a conclusion which extended observation I believe will fully confirm.

Treatment of Dysentery.—Life in the camp is specially calculated to produce dysentery, or the local determination of blood to the lower bowels, when the primary cause is taking effect upon the nervous system. The hips are more frequently exposed to the ground, and without covering, than any other part of the trunk, while the recumbent posture upon the ground is most favorable to the inhalation of the malarial poison. The soldier subject to such habits requires a treatment specially adapted to his situation. He should take nothing calculated to increase his susceptibility to change of temperature, nor to impair his vital forces. To equalize the circulation, instead of abstracting by blood-letting from it, should always be the rule. No error in practice is more frequently advised in text-books than this of bleeding in dysentery. Fortunately, from necessity, it is generally, I believe, dispensed with in the camp. Bloodletting was never beneficial in diseases involving the mucous membranes, and its disuse is rapidly following a better knowledge of the pathology of dysentery.

Mercury is another remedy which has been highly esteemed in dysentery, from a confused idea that this disease was in some way a sequence of diseased condition, or deranged function of the liver. All careful observers will find the hepatic difficulty but an *effect* and not a *cause* in dysentery, as in all malarial fevers. The primary effect of malaria is upon the organic system of nerves, and hence the processes of nutrition and secretion are suspended. The liver being the largest secretory gland in the system, the effect in this organ is most apparent. Malaria serves to lock up all the secretions, and hence the true remedy is that which will neutralize this poison, when all the organs resume their functions and the system returns to health. The use of mercury in dysentery is not indicated by any condition of the disease, and in camp dysentery it cannot be too earnestly deprecated. Its effect upon the constitution when long continued is analogous to that of malaria—the destruction of red globules in the blood. It is irritating to the mucous surfaces when diseased, and serves no purpose that may not be attained by the most simple cathartic. Mercury and malaria cannot be endured in the same constitution without a two-fold injury to the vital powers. Bloodletting and mercury are good remedies when inflammation involves serous membranes, but when the mucous tissue is diseased, abstain from their use. The liver will take care of itself if the primary cause of the disease is properly attended to.

Alternate cathartics and opiates is a favorite course with the old physicians. I have seen a patient sink and die within three days from the effects of a cathartic, and this, too, after the physician had decided convalescence to be fully established. The practice which I have found præeminently successful consists mainly in the administration of powders composed of Ind. rhei, grs. ij.; opii and ipecac., aa gr. ss. In preparing these powders I triturate the

ingredients thoroughly in a mortar, combining a little white sugar. When there is indication of acetous fermentation in the stomach and bowels, add a little sub. carb. soda. When there is obstinate constipation, increase the rhubarb; if the bowels are relaxed, lessen it. If fever runs high, increase the ipecac. until nausea is produced. The rhubarb will work its way through the bowels and carry the opium to the seat of the disease, preventing the formation of scybala or the necessity of other cathartic remedies. When there is no fever at the commencement, I give quinine to the adult in four-grain doses, alternating with the above powder, every third hour. When there is well-marked pyrexia, wait until a distinct remission before giving the quinine; it should be continued until 16 to 20 grains are taken, or cinchonism is produced. With this simple treatment, commenced early in the disease, the great majority of cases will be cut short within forty-eight hours, and the patient may be permitted to go about his business. On the Isthmus a patient was seldom detained from his work more than one day from an attack of dysentery; and in simple ague he was merely required to report himself at the hospital before each meal, to take his quinine and go to his work regularly, in the majority of cases. The proportion of deaths to the whole number of cases on the Isthmus was very small, the statements of the secular papers to the contrary notwithstanding. The whole number during the first and second year was about 35. I have seen the number stated more than the whole number of persons, both native and foreign, ever employed upon the road from its commencement to its completion.

A wide-spread prejudice obtains with the public against the use of quinine, and many physicians do not seem to be much better informed upon the subject. It is as harmless, in producing any permanent constitutional effects, as capsicum. I have administered over a hundred ounces from first to last, without ever discovering any injurious effects from it. During the yellow fever epidemic at Fort Hamilton, L. I., and during and subsequent to an attack of that disease, I took about two hundred grains of it, and have never been in better health in my life than since. It should be remembered, however, that I was a month almost constantly breathing the poisoned atmosphere of that district, having no time to attend to myself as I did others, taking the remedy at hap-hazard as I felt the indications coming on. Quinine alone has no permanent effect in preventing the recurrence of fever. It simply neutralizes the poison of malaria for the time being. More permanent results were obtained from the use of the bark in powder, as administered before sulphate of quinine came into use. A concentrated preparation of the calisaya bark should always be used after breaking up a fever with quinine, in private or hospital practice.

The use of spirits by those subjected to a malarious atmosphere

is exceedingly prejudicial. There are few constitutions that can bear up under the combined effects of malaria and strong drinks; fever is hastened and rendered less amenable to treatment by such practice. On the Isthmus this was most thoroughly tested, not only among the laborers, but with the people generally. Of the four deaths that occurred in my department, two of them were from this cause.

Many measures may be adopted by the physician or army surgeon not indicated here, for the relief of the patient suffering from dysentery; my object being to establish general principles for the "abortive" treatment of the disease, and not to dwell upon the minutiae. If I have succeeded in calling attention to, and pointing out the way by which the miasmatic origin of dysentery may be recognized, I am confident that it will lead to a more speedy and successful treatment of this disease than that generally advocated by text-books and the profession.

Cleveland, O., August, 1861.

HOSPITAL CONSTRUCTION.

BY FRANCIS H. BROWN, M.D., CAMBRIDGE.

(Concluded from page 54.)

WE come now to ward construction.—Each pavilion, or, if in a block, each portion representing a pavilion, should have an inside measure, approximately, of 105 ft. \times 25 ft. \times 32 ft.; this would give two good wards of eighty feet in length, with twenty-five feet for nurse rooms, &c. at the ends. This size would allow for twenty beds a cubic space of 1600 feet to each, or, for 32 beds, 1000 feet. The latter amount of air cannot well be diminished, without injury to the patient. The buildings in our climate, should, of course, be built of stone or brick, as being the most durable articles. They should be fire-proof; the horrible *prospect*, even, of a fire in a hospital, filled with feeble and helpless beings, will explain this demand—the floors, walls and ceilings of some impervious materials, or as near that as may be. The amount of organic matter given off in such an establishment is large, and, under unfavorable circumstances, these surroundings become dangerous absorbents. The floor should therefore be of hard wood—our southern pine forms a good material—the grain of the wood saturated with varnish to render it more fully impervious. Still a better material would be encaustic or other form of tile, did not its coldness preclude its use; however, the halls and corridors, throughout the buildings, should always be so laid. If the walls and ceilings are simple plastering, they should be so protected as to be perfectly imporous, thus rendering the absorption small and facilitating frequent cleaning. The walls should be colored with some light tint, never with dark—as before said, sunlight can be

easily excluded at any time by artificial means, but never made. At the same time, the darker tints give a sombre hue to the ward and have an ill effect generally on the moral condition of the patients. There should not be more than two stories to each pavilion, nor more than one ward to each story. Buildings of two stories are most for the advantage of the sick, and for economy and ease of administration; the sick are thus spread over a large space and the walls are not so high as to interfere with the transmission of light and air. Ample stair-cases, always of iron or stone, always with a moderate rise and well protected by balusters, to be provided for each pavilion or portion representing a pavilion.

Lifts or dumb waiters for the conveyance of food to upper wards, as well as for carrying convalescents and cases of accident and for the removal of the dead, to be used in every building. If only for the conveyance of convalescents, who would be much benefited by every half hour's walk in the open air, their value would be incalculable. One often meets, at the top of a flight in a hospital where no such means are provided, a patient—perhaps convalescent from typhoid, or in an advanced stage of phthisis, or, still more marked, with cardiac disease—just returned from an excursion; benefited, indeed, by the walk and the fresh air, but perfectly exhausted by mounting one, perhaps two or more flights to reach his ward. The lift, besides requiring only one occasional attendant, will carry a patient up with an ease and safety which no other means can equal.

Hot and cold water should be freely dispensed in every ward of the house; this should either be drawn from a tank, situated, preferably, outside the building, or from a main under pressure. With the supply of pure water which all our cities now have, it may be taken directly from the main.

No drain should ever pass under any part of a hospital. All water closets, bath rooms and other places where water may be used, should be placed near the outer wall of the building, and the drain pass through the wall and directly away from the building to an appropriate sewer. This will frequently necessitate three or four sets of drains from a building. Even this, however, is far preferable to those liabilities which we know are constantly occurring in some of our best hospitals and private dwellings, from the drains passing below the cellar in whole or in part.

Gas should be freely distributed over the buildings. Nothing, of course, need be said further of it, than its great advantage in night nursing; the ease with which it can be turned to a perfect glimmer of light, and, in case of sudden need, turned up to illuminate a whole ward.

Size of Ward.—In speaking of pavilion size, I spoke, incidentally, of the size for each ward. The number of patients in a ward and the size of the ward are, of course, convertible terms, and we must therefore consider them together. The best size of a ward, for

ensuring the two conditions of recovery and discipline, is such as will hold from twenty to thirty-two. Wards containing more than thirty-two are undesirable, as making the ward unit much too large for economical and easy attendance, as well as, from architectural rules, making the necessary ventilation expensive. Wards smaller than twenty are undesirable for several reasons:—they are more difficult of ventilation; the dividing up of a certain space into four wards, is merely interposing four walls to stop the free circulation of air, and, consequently, ventilation; increasing the number of corners for stagnating air, inversely to the number of patients, as the number of wards is increased. The good of the sick should, of course, be the first object in the construction of a hospital; it so happens, however, that the safer plan for the patient is the more economical; the expense of one ward of thirty-two is, of course, less than of four of eight each. A number of small wards is objectionable, too, on account of attendance; two nurses, with one or more orderlies, could, in a well-regulated hospital, oversee a ward of thirty-two, while they could not do the same for four quarter wards. In the event of death in a ward, the survivors are much more liable to be affected by it if few in number. Taking, then, twenty and thirty-two as the outside limits of the ward unit, it remains to determine the cubic space to be allowed each patient. This is an important point, as cubic space and ventilation go hand in hand. In English Hospitals, the amount of cubic space varies from 600 to 2000 feet to each; in some of their military hospitals, less than 300 feet; Hennen recommends 800 feet to each. In Paris, 1700 feet are thought advisable; Lariboisière has 1760. With the single exception of St. Luke's Hospital (New York City), I am unable to give any statistics in regard to American hospitals. In this institution, 1092 feet are allowed to each patient within the wards, and, including the adjacent corridors, 2079 feet. In this country, and in any place other than the most populous localities, such a space seems unnecessarily large; I think from 1200 feet to 1500 feet, under ordinary circumstances, is sufficient. The ward should be not less than twelve, nor more than eighteen feet in height. Beyond these points ventilation would be prejudiced. The width, in like manner, should not be more than thirty feet; if more than this, it becomes difficult to create a current.

In a pavilion ward, the beds should always be on the two sides; the foot of the bed towards the centre, and the head one or two feet from the wall; by the latter arrangement, more perfect ventilation and easier access to the patient may be obtained. This would give, in a ward of twenty-five feet, about eleven feet clear between the two rows.

In no hospital, of whatever form, should the beds be arranged along a dead wall or in such a manner that more than two rows are placed between opposite windows. The former arrangement deprives the patient of his due amount of light and air; the latter

causes the impure air and effluvia of several patients to pass over neighboring beds, till it reaches the opposite window or ventilator and escapes. In a large proportion of the hospitals now built, the faults here named, with some modifications, exist. In the plans of some English hospitals, we see that the air passes over as many as *eight* beds between opposite windows. To cover one side of the building with a corridor or closed balcony is inadvisable; it, in fact, creates a dead wall, with the additional disadvantage of connecting various wards; making the impure air of each common, and so constituting a hospital atmosphere.

Ventilation may be accomplished by windows, by ventilators, by open fire-places, and by currents of air thrown into the room by fans. "Natural ventilation, or that by open windows and open fire-places, is the only efficient means for procuring the life-spring of the sick, fresh air. Unless the air within the ward is as pure as it is without, the patients had better be away."* The principle of natural ventilation actuated the founders of St. Luke's Hospital in the erection of their building, and with good result. "The whole study of ventilation has been to discard mere theory and be confined to natural laws and simple movements of air; there has not been a single attempt to make the air, in its progress through the several parts of the building, take any other than a natural course, and, from the experience of the past few months, there can be no doubt of the complete working of the plan of ventilation."† The windows, as I have before said, should be on both sides the ward, one for each bed, or at least one for every two; within two or three feet of the floor and up to the ceiling—on the sunny side, to be provided with curtains or blinds. Ventilators, connecting with flues and with a good draught, should be numerous, for the purpose of purifying the ward in very cold or inclement weather. In hospitals where the ventilators are within the control of the patients, we may frequently find them closed, especially during cold or stormy weather; just the time when the closure of the windows renders such means of purifying the air most desirable. Sailors, in particular, who spend much time in confined, and—in stormy weather—perfectly closed forecastles, no sooner get within the precincts of a hospital, than they close up every aperture they can reach, whether accidental or arranged for the purpose of ventilation. The ventilators may be assisted, as at St. Luke's, by currents of air thrown in by powerful fan-wheels.

Open fire-places, as a matter of hygiene, would be the best means of heating a ward; such an arrangement, however, localizes the heat too much around certain points. It would be well if these could be made the principal means of warming, with the aid of a hot air furnace to equalize the temperature; the furnace being a secondary means. Unfortunately, as a matter of

* Nightingale, p. 10.

† An Account of St. Luke's Hospital, &c.—New York, 1860, pp. 56.

economy, such a method is not practicable, and open fire-places, except as a rarity, cannot be indulged in. We must then use furnaces, thereby ensuring a constant draught of fresh, heated air. Heat produced by radiation, either from steam-pipes or stoves, should never be thought of; this is merely a means of heating the same air over and over again, without any change in its character, except for the worse. Steam may, however, be used as a heating element, as is done at St. Luke's Hospital. The coils of pipes are placed in brick chambers, situated in the cellars—these chambers are constantly supplied with pure air from without, and the air, heated by contact with the pipes, is conveyed by flues to the various parts of the building.

We now come to the minutiae of ward construction and its adjuncts. Every ward in a well-regulated hospital should have the following connections:—nurse-room, bath-room, water-closet, dining-room, and, for want of a better name, scullery.

The nurse-room need not be large; sufficient to accommodate the head nurse, with her assistant, by night and day; situated at one end of the pavilion ward; with a door opening into the same, and also into the common hall; with a window, too, opening into the ward, by which a view can be commanded of the whole at any time. The medicines and liquors should be kept in her room, where she alone can be responsible for them; including, not only the regular daily medicine of the patients, but such other drugs as may be needed in cases of emergency.

The bath-room, situated at the opposite end from the nurse-room, should be provided with set bowls and bathing tubs, and furnished with hot and cold water. Such an institution should have, too, a portable bath, for the use of patients too feeble to reach the bath-room. A sulphur bath should, of course, exist in every hospital: it should not, however, be in the room generally used as a bath-room, as the pungent and persistent fumes of the sulphurous acid would be an annoyance.

Water-closets should be situated at the end opposite the entrance; or, in a building with wings, always at the distal extremity; to be well lighted and ventilated, and separated from the ward by a lobby or entry, also to be lighted and ventilated; at least one water-closet should be furnished for every ten patients. This department should also embrace a deep sink or receptacle, well provided with water, for the discharges received in bed-pans.

In every ward there will be patients who can be out of bed most of the day; and for such, a dining-room should be furnished. Patients who can be out of bed should never dine in the wards; this practice is disagreeable, often disgusting to the sickest and the least sick of the patients. To the former, the smell and sight of food they cannot eat is generally distressing; often positively injurious. With the latter, the disagreeable odors and disagreeable sights and sounds, which must be continually occurring and to

which the attention is more forcibly called by the concomitance of circumstances, will be very apt to blunt the returning sharpness of a convalescent appetite. The dining-room need be no larger than the nurse-room.

There should be a small room at the end of the ward to serve as a general laboratory; necessary small cooking might be accomplished here; dishes and other articles washed, &c.; and it would serve as the general store-room for brooms, pails and other articles used about the wards. Various minutiae of ward service, which, in many of our hospitals, are now performed in the wards or corridors, would find their appropriate place in such a room.

Ward furniture should be simple and durable; the bedsteads of iron, with iron sacking; the mattresses of hair—straw is cold, and husks, rattan shavings, &c. are too hard for the limbs of the sick. I would recommend chairs and tables of chestnut or some similar hard wood, unpainted and unvarnished; the prime cost would be but little above that of common pine; the durability and permanent neatness would fully compensate for the difference in price. Everything not necessary for the convenience or conduct of the ward, had better be out of it, than in; thus closets and wardrobes occupy too much space, and interfere with the free circulation of air; while these and all unnecessary articles of furniture are at all times in the way.

It remains to speak of some hospital adjuncts. I think there should be, in all hospitals of any size, convalescent wards. There must, at all times, be patients recovering, as well as those very sick, and the influence of one of these classes on the other must be prejudicial; the unavoidable conversation and motions of the convalescents will disturb the sick; while the prostration, distress and cries of the sickest, perhaps the death of a patient, will have an injurious effect upon those recovering.*

No hospital is complete without covered exercise grounds, well lighted and aired. These might be immediately connected with the main buildings; they should never be so connected as to form wings, with closed angles; they should never exist as corridors, attached to the side of the building; both plans would materially interfere with due ventilation. *Open* corridors would undoubtedly be of advantage, as furnishing a good exercise ground on the ward level. Exercise grounds might be provided with gymnastic implements; at any rate, with some appropriate means for restoring the mental, as well as physical vigor of the recovering. One can often notice the retarding influence of a long storm on a ward full of patients, in an institution where no such means are provided.

* The excellent success which the tent and hut hospitals had in the Crimea might suggest a similar arrangement in connection with our civil hospitals during the warm season. Why might not a large tent or marquee be set up on the vacant land of our hospitals during the warm months, to serve as a dormitory for the convalescent? Any person at all conversant with hospital service, must know the injurious effect at times of "hospital air," and must have been witness to many slow recoveries under such influence, which would have been otherwise comparatively rapid.

It is not so much the carefully-prepared prescriptions and the well-arranged diet which very many of our patients, especially chronic and convalescing cases, require; as it is that mental and moral medication which a certain amount of wholesome exercise, with a due proportion of some amusement, affords. "The epigastric tyranny, which so afflicts the maid of Erin, chained to her laborious routine; or yet the evil demon of the sewing girl, the stitch, begotten of the stitch," will long fail to yield, unless assisted by some other means than subnitrate of bismuth and Burgundy-pitch plasters.

One building should be devoted to all such diseases or states of disease as may be injurious or offensive to the patients of the wards, such as delirium—acute or permanent—offensive discharges and odors. It should be divided into small rooms, each containing but one or two beds; the windows guarded with bars; the walls of one to be padded; the whole building to be even more fully ventilated than the common wards.

Operating room.—Its chief requisite is light, and this in abundance and from above. For this reason the room would best occupy a dome, if the institution were possessed of such. It should contain the surgical instruments of the establishment, and be provided with water, hot and cold, and with suitable amphitheatre for students, if the hospital is intended for clinical instruction.

The accident room may be small; it should be near the rooms of the resident officers, and well lighted by day and night; supplied with water, as well as with those appliances, which may be required in cases demanding immediate action, before the patient is carried to the ward. Frequently patients come in at night, with severe injuries or seriously ill. To carry such into a ward at that time would prove injurious to all; perhaps seriously so to those most ill. For such emergencies, a small casualty ward, perhaps of only two or three beds, would be of advantage, from which the patient, in the morning, might be carried to his appropriate place.

The dead-house demands attention, in order to allow me opportunity to speak of one point—the removal of the dead. I have spoken of lifts, as being advisable partly for this purpose. They should be carried to the cellar, there connecting with an underground passage to the dead-house, which should, of course, be at some distance in the rear of the other buildings. The injurious influence on patients, perhaps females, perhaps convalescents, perhaps those consciously fatally ill; the disagreeable effect on those in the yard or on persons in the neighboring houses, of removing the dead by the passages and through the yard, need only be mentioned to be guarded against. The dead house should, of course, have an autopsy room adjoining it.

A hospital kitchen forms, secondarily, a part of the sanitary construction of the institution. It should always be away from the buildings used as wards, never under them; always with a high,

ample chimney to carry off smoke and effluvia. The cooking apparatus, boilers, &c., if situated in the centre, will afford the largest amount of fire space, as well as favor economy, however small, of heat. Around the side may be arranged tables for the preparation of meats, pastry, bread, &c. The floor should be of flags, as a means of cleanliness and permanent economy.

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Army Medical Intelligence.

REPORT OF THE SURGEON OF THE EIGHTH REGIMENT, M. V. M.

In presenting the enclosed statistics of the sanitary condition of the 8th Regt. during the period of its enrolment in the service of the United States, I would recognize with devout gratitude that kind Providence which through fatigue, trials and exposures, has preserved us all and returned us to our homes an unbroken band. This is especially remarkable, in view of the fact that the men were submitted to no medical examination, which would have rejected many as the subjects of disqualifying diseases; most of the patients remaining any length of time in our hospital being those suffering from chronic diseases. Exchanging the comforts of home, at an hour's notice, for the exposures of military service, the regiment, after a forced march of some ten days! the details of which have become historic, reached Washington, and was quartered in the damp and cold Rotunda of the Capitol. The supply of bedding was insufficient, and many of the men were compelled, some without a blanket even, to lie on the damp stone floor. At the end of a week, these quarters were exchanged for the galleries and rooms surrounding the Representatives' Hall. The location of Camp Essex, near the Relay House, Md., where the

regiment was quartered for nearly seven weeks, was a most desirable one. The facilities for drainage were excellent, and the utmost care was exercised by the officers to ensure cleanliness in the camp. Water was easily obtained, and excellent in quality, and to this fact I attribute much of our freedom from disease. Camp Andrew, in Baltimore, to which the regiment was moved during the month of July, furnished an equally desirable location.

Sickness.—The exposure during the march and while quartered in the Capitol resulted in some sixty cases of tonsillitis, and thirty-two of diarrhoea. Most of the cases of tonsillitis were mild, and easily controlled by the use of a solution of chlorate of potash, few advancing to suppuration. One case of variola was seen. The patient was immediately sent to a special hospital, and measures taken to prevent infection. No other case was reported. Most of the cases of diarrhoea were caused by exposure. A flannel bandage, worn around the abdomen, has been found to be an efficient preventive, and I would earnestly recommend that sufficient flannel be furnished to our regiments to supply this simple safeguard to the men. Many cases were caused by the use of fresh meat. At a small expense for ice, the meat could be so far cured as to obviate this difficulty, and at the same time be rendered fit for transportation. Six cases of typhoid fever occurred, all but one among members of Co. K, stationed for some weeks at Fort McHenry, where some ninety cases have occurred. In seeking for some local cause, it was ascertained that the labor required of the troops had, necessarily, been exhaustive—that they had been quartered in brick buildings formerly used for stables, and that the surface drainage of the city borne down the harbor is deposited in considerable quantities near the Fort. Whether or no these are the true causes of the prevalence of the disease in that locality, the *fact* demands investigation at the hands of the local authorities.

Hospital Accommodations.—The old Senate Chamber, fitted for the purpose, furnished ample accommodations for our sick when in Washington, while the active exertions of Miss Dix, and the devoted attention of Miss Lander and other ladies, supplied to them all the comforts possible. After taking the field, we were without suitable tents, no hospital tent being furnished before the middle of July. The sick were quartered at the Relay House during our stay in that vicinity, until the establishment of a Post Hospital, a few days before we left. At Camp Andrew, the sick were provided for in an unoccupied house near the camp. My frequent requisitions failed to procure the needed hospital stores, and it was only through the liberality of Hon. J. B. Alley and the officers of the regiment, that I was enabled to procure supplies for the absolute wants of the sick until I obtained stores from Massachusetts.

The medicines and appliances furnished by the State were excellent in quality, and more than sufficient in quantity for the use of the regiment.

In conclusion, I would gratefully acknowledge the active coöperation of Mr. Tapley, Acting Assistant Surgeon, and of the officers of the regiment. The tact, capacity and untiring zeal of Hospital Steward Alley, and Ward Master Warren, deserve especial mention, and I would most earnestly recommend their re-appointment in some one of the regiments enlisted for the war. Respectfully,

BOWMAN B. BREED,
Surgeon 8th Regiment, M. V. M.

LETTER FROM DR. KIMBALL—HOSPITAL AT FORTRESS MONROE.

[THE following is a portion of a letter from Dr. Gilman Kimball, of Lowell, and is taken from one of the papers of that city.]

Fortress Monroe, August 5th, 1861.

— — — : Although the interest in this still important post has considerably diminished of late, while the eyes of the nation are being turned more particularly towards Manassas and Washington, Old Point Comfort and Fortress Monroe must still be regarded as a point just as essential to the progress and final success of our war as ever it was.

The great diminution in the number of our troops has, of course, necessarily greatly diminished the number of sick and wounded in the hospital under my charge. Last week our register showed the number of patients in hospital to be 170; at present we have but 130. Two weeks hence I doubt if we shall be able to count more than 50, all told—certainly not, unless there is an arrival of more troops.

During the two months of my connection with the medical and surgical department at this post, I have had under my charge about five hundred patients, most of them, of course, subjects of medical treatment, while the surgical cases scarcely exceeded fifty—all these latter, gun-shot wounds. You will be surprised to learn that of the cases of *disease*, three only have thus far proved fatal—one from consumption, the remaining two from fever. From gun-shot wounds we have lost four. In two cases the bullet had entered the abdomen, in another it had passed through both arms and both lungs, while the poor fellow was in the act of taking aim at the enemy. The fourth case was from mortification, ensuing from a terrible wound in the thigh—an accidental wound.

Several of the recoveries from these wounds have been very remarkable—two of them fractures of the thigh-bone by a ball passing through the limb—in one case close to the hip-joint, and the other through the middle. These were interesting exceptions to the almost never-failing rule, loss of limb, at least, and too frequently loss of life. One young man is now recovering from a wound produced by a bullet entering just below the breast bone, and lodging *somewhere* in the abdomen. From the deep jaundiced color of the skin that ensued almost immediately after the accident, it is probable that the ball had entered the liver. For several weeks this case was regarded as hopeless; he is now almost sure of recovery.

A few days since, I extracted a ball from the leg of a young man who had been wounded seven weeks before, at the battle of Big Bethel. It had struck the shin-bone, and so accurately upon its spine as to cause it to be split almost completely into two hemispheres, and yet the bone was not broken, and his recovery is certain.

Our cases of sickness consist mostly of fevers. They are remittent in type, and evidently of malarious character, entirely different, in most respects, from the fevers of the North, and requiring an entirely different kind of treatment—tonics and stimulants in every case. The number of deaths you will acknowledge to be extraordinarily small, and indeed almost incredibly so—a coincidence, I grant, rather than a proportion reasonably to be expected. *Something*, however, we think, should be put to the credit of hospital arrangement. No pains have been spared to make the accommodations for the sick as completely

comfortable as possible—as much so, in fact, as can be found anywhere, even in the *civil* hospitals in New England.

There can remain no doubt upon the question of female nurses in these establishments. The advantages of this arrangement cannot be easily over-estimated. I have had ample experience both ways—without them and with them; and from this experience I give the above opinion. Let any one, however indifferent, ordinarily, to general household appearances, pass through the main passages of our hospital, and cast a glance into the different wards, no matter what time of the day or what time of the night, he will at once see and feel the effect of female management. But the benefit of this newly-adopted plan of hospital nursing does not consist merely in what is observed in the general order and neatness of apartments, or even in the universally acknowledged superiority of personal *bed-side attendance*; it is especially observed in the decided impression it makes upon the *moral* condition of our patients, suggesting to their minds the importance of regarding the same rules of propriety and orderly conduct they have been wont to observe at home. Another moral effect to be noticed is the cheerfulness and grateful acknowledgments exhibited by those whose helpless condition requires just such attention as female hands *only* can supply. Setting aside every form of argument that theoretically suggests itself in favor of female nursing in military hospitals, I think the history of two or three cases, now in my mind, that occurred with us during the last month, could they be pictured to the mind, as I saw them, and as others saw them, from the day they came under our charge till they were terminated by death, would prevent any one, with a sound mind and a respectable share of humanity, from doubting upon the subject. It is not necessary to state specifically the various things done for these persons; it is enough to say that in no particular could they have received more kind or constant, and, I may say, more *skilful nursing*, even at their own homes and surrounded by their own relatives and friends. This condition of things, compared with what it must have been in the camp, or regimental hospital, had they remained there, or even in a military hospital, with only the comparatively coarse and rude nursing of male attendants, should quiet all doubts upon this important question.

Although our best efforts to save these fine young men proved ineffectual, they have been by no means without the gratifying results, as we already *know* they have afforded unspeakable comfort to bereaved relatives and friends at home, while to those who were at that time, as well as to those who have since come under our care, there has been given an assurance that their condition under all circumstances should be properly cared for.

You will have learned by the time this reaches you, that the neighboring village of Hampton has been burnt. Although already evacuated as to its usual residents, the destruction of property and distress to the negro population there, has been very great. What is to be done with the wretched blacks thus left without a shelter and without the means of subsistence, nobody can tell. They are flocking in upon us by the hundreds every hour, and till some special provision is made for them, they must not only live in many cases without shelter, but be dependent, almost entirely, upon Government stores, to keep them from positive starvation.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, AUGUST 29, 1861.

In a country unused to war, and in an army composed for the most part of undisciplined men, it is hardly to be expected that the complete efficiency of this arm of the government service could be reached without the lessons which time and experience alone can furnish. One of the most important parts of the discipline of such a body is that which relates to the dietary department; and to the perfecting of this we are glad to see that much attention is now being given, an act having recently passed Congress by which a greater variety of food will hereafter be allowed to the soldier—a bill of rations more easily adapted to the varying climate and season to which the army must in the present war almost necessarily be subjected. Hitherto the dietary range has been far too narrow to meet the requirements of men engaged in field operations, and the subject has only now been forced upon the attention of the government by the exigency of the impending crisis. What renders the subject peculiarly important at the present time, is the fact that the army is composed in a great part of volunteers unaccustomed to the vicissitudes of climate, and to the fatigue and exposures of camp life; and it is quite certain that, unless the most careful attention had been given to this subject, during the coming autumn months it would have been seriously diminished in force and efficiency. Hitherto the ration bill (we quote the words of a recent writer) has presented too concentrated a form of diet for continued use; abounding in fibrin, gluten and fat, and without a sufficiency of starch, mucilage and acids; “Aromatic herbs and spices, so necessary to health, particularly in hot climates or seasons, have been omitted, while fat pork, an article contra-indicated in summer, both by the state of the appetite and the physiological necessities of the system, has constituted the sheet-anchor of its animal food.” When it is considered that our volunteer troops are principally from a northern climate, and now for the first time are subjected to almost tropical heat, in a malarious district, the importance of this subject cannot be overrated. By reference to the recent enactments on this subject, which we give below, it will be noticed that the addition of fresh vegetable food to the regular ration, affords a more mixed, instead of the hitherto too exclusively animal, diet furnished the soldier:—

“SEC. 13. *And be it further enacted*, That the army ration shall be increased as follows, viz.: Twenty-two ounces of bread or flour, or one pound of hard bread, instead of the present issue; fresh beef shall be issued as often as the commanding officer of any regiment or detachment shall require it, when practicable, in place of salt meat; beans and rice, or hominy, shall be issued in the same ration in the proportions now provided by the regulation, and one pound of potatoes per man shall be issued at least three times a week, if practicable; and, when these articles cannot be issued in these proportions, an equivalent in value shall be issued in some other proper food, and a ration of tea may be substituted for a ration of coffee, upon the requisition of the proper officer: *Provided*, That after the present insurrection shall cease, the ration shall be as provided by law and regulations on the first day of July, eighteen hundred and sixty-one.

"SEC. 14. *And be it further enacted*, That there may be allowed in hospitals, to be provided under such rules as the surgeon-general of the army, with the approval of the Secretary of War, may prescribe, such quantities of fresh or preserved fruits, milk or butter, and of eggs, as may be necessary for the proper diet of the sick."

Another point of much importance in reference to the diet of the soldier, is its quality. In a late number of the London *Lancet* it is stated that in a large proportion of the cases of sickness in the British Army, the origin of the complaint is to be attributed to the inferiority of the food furnished them; a most reasonable opinion, as the following extract will show:—

"For what these beverages, dignified by the names of tea and coffee, are really composed of, would puzzle any but an analytical chemist to determine. The mixture substituted for the fragrant Mocha possesses such strong detergent qualities that, whenever practicable, it is exchanged for that representing the choice Bohea, which has the advantage of being harmless, though at the same time it is marked by a flavor, compared with which that of the sloe-leaf would be delicious. With regard to the bread, there are seldom more than two faults to be found with it: a slight sourness, indicative of a prodigality of alum; and a slight doughiness, indicative of an economy of fuel on the part of the baker. If, however, tea, coffee, and bread are indifferent, the meat is worse than indifferent. Carcasses are sent into barracks day after day, at the sight of which even Dr. Letheby himself would stand aghast—carcasses of sheep which present most unmistakable signs of having escaped a violent death—carcasses of larger quadrupeds which may or may not have belonged to the bovine species. Nor is the quality of the meat improved by the cooking. Huge lumps of flesh are precipitated into a boiler, where they remain a certain time, at the end of which they are taken out, done or underdone; they are then chopped up and hacked into smaller pieces, and divided into so many messes, according to the strength of the company. The fare of a farm laborer is generally supposed to be coarse, but there is scarcely ever a recruit fresh from the plough-tail who sits down to dinner with other feelings than those of loathing and disgust. Constant exercise at drill provokes hunger, and by degrees he learns to eat his mess with the reflection that if he does not choose to do so he may starve."

If we expect to succeed in the present struggle, it is of the utmost importance that the regimen of the soldier be carefully attended to. If we would guard him from the many morbid influences with which he must necessarily be surrounded, and, above all, if we would avoid another Bull Run catastrophe, let him have an abundance of suitable food. We regard that reverse as due in no small degree to the half-starved condition of the Federal Army when brought into action, a result fairly attributable to ignorance and inexperience.

HOSPITALS IN WASHINGTON.—A writer in the *American Medical Times* gives a brief sketch of each of the hospitals now open in Washington and its vicinity.

The Washington Infirmary has been established for several years, for strangers and homeless persons. The Sisters of Mercy, under the Professors in the Medical College, have had charge of it, and still continue under its military administration. It has 180 patients. Drs. White, Gouley, Butler, and their assistants, constitute the medical staff.

The Columbian Hospital has heretofore been used for collegiate purposes. It is an old five-story brick building, on the summit of Meridian Hill, with no water supply nor sewerage. Its chief physician, Dr. Abadie, is assisted by Drs. Asch, Brainard, Adolphus and Knickerbocker, and ten lady nurses. It now has nearly 250 patients, with fewer surgical cases than the other hospitals.

The C Street Hospital for Regulars is in a couple of dwelling houses in the rear of the National Hotel. It is now crowded, having 78 patients, mostly surgical cases. Its location is bad.

The Union Hotel Hospital, Georgetown, was formerly a public house, and much out of repair. It was the first hospital called for after the Infirmary was used for surgical cases. Dr. Gaineslan is the chief physician. Twenty-four patients were in the wards at the time of the visit. Women are employed as nurses.

The Seminary Hospital, Georgetown, was formerly used as a boarding school. It is under the management of Dr. J. R. Smith, and assistants Wolverton, Ripley, Norwood and Kennedy. It has 162 patients, mostly surgical cases. Seven well-trained women and two or three men do the nursing.

The Military Hospital at Alexandria, is in an old seminary, selected by Dr. King soon after the military movement upon Manassas had been ordered. The buildings have been turned into the best practicable condition, and they now contain 104 patients, mostly the wounded brought in from Bull Run. Dr. —, of the Navy, has charge, and there are two assistants, two cadets, eight lady nurses and a few subordinates.

A Sanitarium and Hospital for Convalescents has been opened at Annapolis, and 200 patients have been removed thither from Washington.

In all the Hospitals, about 500 of the patients are suffering from wounds, a few from dysentery, a considerable number have articular rheumatism, and the remainder typhoid fever, diarrhœa, &c.

MEASLES.—It is not a little remarkable that in the various camps, both north and south, the most prevalent disease by all odds has been measles. The very general employment of vaccination has thus far deprived variola of its traditional terrors. But for rubeola we have, at present, no reliable prophylactic. The only recourse, therefore, is to judicious regimen and treatment. Now, strange as it may appear, the treatment adopted is almost as diverse as the different camps where the disease prevails. In their commendable anxiety to distinguish themselves, it is to be hoped that our military faculty may not be tempted to employ the old, exploded, heroic, perturbing methods. Perfect cleanliness, good ventilation, very little medication and a few days' time, are all that is necessary for the vast majority of cases. Don't fill the patient's stomach with drugs, or his bowels with slops—give him fresh air and clean sheets. These are the essentials of good treatment.—*Chicago Medical Journal*.

ASCITES COMPLICATING PREGNANCY.—When, in a case of this kind, all the dropsical effusion is evacuated by means of the ordinary trochar and at one time, contraction of the uterus generally comes on at once; abortion or premature delivery, therefore, may be the consequence. To prevent this accident, M. Pigeolet advises a simple puncture to be made with a needle or a capillary trochar at the umbilical bulging, which almost always exists in these cases. The liquid escapes, drop by drop, and the danger of miscarriage is avoided. M. Pigeolet has employed this method in one case with entire success.—*Journ. de Medecine de Bruxelles*.

SPANISH ELECTUARY FOR RHEUMATISM; BY DR. FERNANDEZ.—Gum guaiacum, half an ounce; powdered rhubarb, 150 grains; cream of tartar, 380 grains; sulphur, 750 grains; powdered nutmeg, one; clarified honey, 11 ounces.—*Gaz. Med. Belge*.

DE BREYNE'S PILLS FOR THE TREATMENT OF CHOREA.—Camphor, 180 grains; assafetida, 180 grains; extract belladonna, 1 drachm; extract of opium, 15 grs.; syrup of acacia, q. s. Make 120 pills; one, gradually increasing to four, to be given daily.—*Presse Med. Belge*.

The New York Medical Association for the supply of lint, bandages, &c., for the army, which was organized at the commencement of hostilities, and which has expended \$11,548, has been recently dissolved—the Medical Department of the Army being now prepared to supply all necessary articles for the Hospitals.

THE total number of deaf and dumb persons in France is 21,576. Of these, 12,325 are males, and 9,251 females. The proportion, with respect to population, is 1 deaf and dumb person in 1,669 inhabitants; 1 in 730 men, and 1 in 939 women.

CLIMATE OF NICE.—M. Wahu, senior physician to the military hospital of Nice, has addressed a letter to *L'Union Médicale*, in which occurs the following passage:—"I have observed since residing at Nice that many patients with softened tubercles die here rapidly every winter, whilst they might have lived for months or years elsewhere. Persons, on the other hand, predisposed to phthisis, thrive remarkably in this climate; and no place is preferable to Nice for children and young people of both sexes whose constitution and hereditary tendencies are to be modified."

NAVAL.—Dr. B. F. Wilson, of New Bedford, has been appointed a surgeon in the Navy, and has entered upon his duties at Charlestown.

DR. KIMBALL, of Lowell, writes that he is making preparations to leave the Hospital at Fortress Monroe, as soon as his successor may be appointed.

JOSEPH HAYDEN, the young man so well known to the medical community as being the unfortunate possessor of an everted bladder, is now in this city soliciting pecuniary aid. Any one desiring to lighten the burden of his sufferings by any contribution, however small, can send it to the office of the JOURNAL, and the Editors will be responsible that it is placed in his hands.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, August 24th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	51	48	99
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	54.7	51.5	106.2
Average corrected to increased population, . . . . .	..	..	118.5
Deaths of persons above 90,	1	..	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
11	17	2	1	3	0	7	2	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.159	Highest point of Thermometer,	80.0
Highest point of Barometer,	30.422	Lowest point of Thermometer,	48.0
Lowest point of Barometer,	29.742	General direction of Wind,	W.S.W.
Mean Temperature,	65.0	Am't of Rain (in inches)	0.76

NOTICE.—We are requested to announce that the Forty-third Part of Braithwaite's Retrospect was mailed on the 23d inst., from this office, to all members of the Massachusetts Medical Society whose names are on the Treasurer's book as having paid their assessment. Members who have paid and have not received the part, are requested to forward their vouchers, addressed to the Librarian, at the office of the Medical and Surgical Journal, and the work will be sent by return of mail. In the notice by the Librarian, in our issue of the 4th of July last, the amount of the postage on Vol. XXIV. of the Library of Practical Medicine was not stated—it is ten cents. The Communications of the Society were likewise mailed on the 23d instant.

PAMPHLETS RECEIVED.—Annual Register of the Rennselaer Polytechnic Institute, 1861.—Proceedings of the Pathological Society of Philadelphia, Vol. I.—Proceedings of the Tenth Annual Meeting of the Illinois State Medical Society, held in Paris, Ill., May 8 and 9, 1860.

MARRIED.—In this city, 23d inst., Dr. William H. W. Hinds, Assistant Surgeon of 17th Regiment, M. V., to Miss Hattie M. Twiss, of Antrim, N. H.

DIED.—In this city, 25th inst., Dr. J. F. W. Lane, 44, a graduate of Harvard College of the class of 1837.—At Brandon, Vt., August 20th, Hon. A. G. Dana, M.D., LL.D.

DEATHS IN BOSTON for the week ending Saturday noon, August 24th, 99. Males, 51—Females, 48.—Accident, 1—apoplexy, 1—inflammation of the brain, 2—bronchitis, 2—burns, 1—cancer, 1—carbuncle, 1—cholera infantum, 17—cholera morbus, 1—consumption, 11—convulsions, 1—croup, 2—diarrhœa, 2—dropsy, 5—dropsy of the brain, 3—drowned, 2—dysentery, 7—scarlet fever, 1—typhoid fever, 2—gastritis, 1—hemorrhage, 1—intemperance, 1—infantile disease, 4—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 5—measles, 2—old age, 4—pleurisy, 2—premature birth, 2—scrofula, 1—disease of the spine, 3—tabes mesenterica, 2—unknown, 1—whooping cough, 2.

Under 5 years of age, 51—between 5 and 20 years, 4—between 20 and 40 years, 18—between 40 and 60 years, 15—above 60 years, 11. Born in the United States, 70—Ireland, 20—other places, 9.

THE

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No. 5.

REMARKABLE CASE OF RECOVERY FROM DROWNING BY THE AID
OF FARADAISM AND ELECTRO-PUNCTURE.

BY ALFRED C. GARRATT, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

EARLY one stormy, ice-making morning in March, I was requested to go in haste to see a man who was just being taken out of the water in our harbor, and was at the end of one of the wharves. He was supposed to be quite dead already, in all probability, as he had been in the water some time before he could be found (the time, I suppose, is always over-estimated in such cases by the excited spectators), and when found, the messenger said the body and limbs were "cold, stiff and corpsy," the eyes and lips very much swollen. He was an athletic seaman, and, as we subsequently learned, was the second officer of the clipper ship *Black Eagle*, an Englishman by birth, of dark complexion, thick set, and weighing about 170 lbs.; had been well, was of good health and habits, and had accidentally fallen into the water by slipping upon the icy dock-log. We were by this time on the spot, and found the case much as represented—a cold, rigid, and apparently lifeless body; by-standers exclaiming, as we approached, "It is no use; he is stone dead; it is useless and nonsense. Oh! he is utterly drowned—dead as death," &c.

Instantly we inquired for the nearest room that could be had for shelter from the wind and storm, and where we might commence operations for his *re-suscitation*. The back room of a flour store, near by, was pointed out, and promptly offered for our use, into which the body was quickly carried, face downwards, by ample and willing hands, who at my orders, though faithless and remonstrating, expeditiously removed his wet, heavy, and partially frozen clothing, washed away the mud from his hair, face, eyes and ears, while others commenced a lively rubbing on the limbs and body with warm, dry towels and other cloths. Some old sacks and a buffalo robe were hastily spread upon a tier of packing boxes, and upon these the body was raised to be convenient for

protracted labors in rolling, that is, tilting the body from side to side, now this side up and then that, also for other manipulations to be instituted. I should have mentioned, also, that it was stated by those who had witnessed the accident, and those who were near by at the time, that the man was not seen to rise after he fell into the water, until some twenty or thirty minutes afterwards—some verily believing it was an *hour*; at least, not until grappling irons had been sent for and used, and some two or three sailors had jumped in and dived repeatedly in vain for him. One of these finally seized him by the boot, or leg of his pantaloons, and, after most desperate efforts, succeeded in bringing him to the top of the water. This sailor told me afterwards that he appeared, when he found him, to be sticking in the mud, head downwards, the water about fifteen feet deep, and that he himself came near being fastened in the plastic bottom during his efforts to “start him;” also that he found one arm out of his coat sleeve, as if he had tried to remove it while there drowning at the bottom of the sea. This was corroborated by the appearance of so much mud and sand about his head and shoulders, and by the extreme tumefaction of his eyes and mouth.

All was alacrity now, and every one seemed to work with a will, though evidently against hope; some with warm, yes, *hot* cloths, others with their strong, rough hands squeezing and kneading the muscles everywhere; others’ mission was to promote artificial respiration by rolling the body regularly every fifteen seconds, well over on the right side and then on the left, at the same time lifting the arms and pressing the sides of the thorax, and then again suspending this latter, reversing the position of the body, and now compressing the abdomen, thorax and heart. Thus relays, of some half a dozen each, were organized, and worked on systematically like good fellows.

I had already noticed that the stomach region was very much distended, and apparently with fluid, notwithstanding so much had dribbled away by mouth and nostrils while carrying him to the store room. A stomach-tube was introduced (which for such occasions I always seize, together with a stomach-pump and magneto-electric machine), and by aid of the pump, discharged an incredible amount of water.

Next, we commenced in earnest the application of electricity, as auxiliary, or rather as, in my mind, the principal hope in this extreme emergency. The machine was put at work at greatest power. The metallic electrodes, covered for the time with bits of wet rag, were applied, the positive to the back of the neck, while the other was at first glided along over the shoulder to the side of the neck, over the pectoral, serratus, and other chest muscles, first on the left side and then on the right; changing back and forth, say every minute; changing the direction of the current occasionally; also changing the site of the electrodes, bringing the

upper or positive one to the side of the neck and over the pneumogastric nerve, then to the brachial plexus, then over the trapezius and cervical spine, back and forth, at the same time sweeping the negative along the lower third of the pectorals and about the whole waist. The current was thus used most powerfully one minute, as *direct*, and the next minute as *inverse*, and this was continued for one hour.

But after this, having thus worked definitely and perseveringly with all our operations for more than an hour, the machine also running all the while at the highest possible speed and strength, and having thus thoroughly embraced the nerve trunks, ganglia, nerve ramifications and muscle fibres of the thorax in the circuit of this powerful electric current, and finding that no signs of life appeared, we redoubled the energy of all our appliances. While other things were being well done, I now directed the current through the chest, placing the positive pole to the nipple of the right breast, and the negative to the nipple of the left, the body at this moment laying on the right side, inclining well over towards the face. Instantly there was perceived a quick, short inspiration, much like a sigh; but unfortunately, this could not be reproduced, though sought for with most strenuous efforts by all hands, for some time longer. I now loosened the binding screw of one of the conductors from the machine, and thus holding its metallic tip, the positive electrode being placed at the *nuche*, while the negative was adjusted with a small sponge-tipped ivory electrode, the sponge being moistened and placed in the left nasal fossa, I made and broke contact in this manner with my hand, every ten or fifteen seconds, retaining the action of the current longer than the cessation. This was a renewed success. Its rallying power was wonderful. Repeated sighing-like inspirations were thus pretty regularly but seldom produced, as was evident to me, and at the same time the skin became softer and warmer. It is noteworthy, that these sighs or inspirations were so slight, and amid such brisk work, and were also so unexpected, that they were discredited by some of the more doubting eye-witnesses. These lively processes were pursued, however, for some half hour longer; during which time, the electrodes were placed respectively on the breasts, and sometimes at the *nuche* and nose, and then opposite the diaphragm, from the lower cervical vertebræ to the pit of the stomach, &c., but the phenomenon of life appeared to flag a little instead of increasing.

At this juncture I resolved to resort to electro-puncture: not primary galvanic, but suitable, or at least admissible, for such a case. Long gold electro-puncture needles, well insulated except at their points, four in number, and four inches in length each, were carefully inserted in quick succession, some two or three inches apart, along the front sides of the chest, two in the lower part of each pectoral, plunging them inwards and downwards be-

tween the fifth and sixth ribs, their whole length, thus transfixing the pectoral, intercostal and diaphragm muscles, embracing the external nerves, also the solar plexus and the phrenic nerve branches. The introduction of the needles made no visible impression, but the instant the electrodes were now removed from the skin and brought only in contact with the ball heads of the needles (or the coupling chain of each two), so that the electric current actually traversed the diaphragm, from the points of one pair of needles on one side to those in the other, there was produced at each contact, i. e., after a delay of some five seconds or so, most manifest respirations, to the infinite delight of all present, for this was the *argumentum ad hominem*. All were now inspired with courage, and this procedure, together with the still faithful labors of the relays for warm frictions, and their rollings for artificial respirations, flexing limbs and squeezing muscles for circulation and warmth, was maintained with encouraging results for another hour or more; for we noticed that if the electrodes were omitted, the respirations, or sighings as they might be called, failed to appear. I now ventured to change again the mode of application. The positive metallic electrode was carried to different points on the cervical spine, then over the sides of the neck, to the cervical and brachial ganglia, and then to the opposite side; at the same time, and all the while, the negative (*strongest*) pole was being so moved as to connect with corresponding needles on that side, or alternately applied to the skin; then again to the needles in the diaphragm, then from tongue to needles, and from tongue to anus, alternately; from nose to needles (the little ivory electrode being adjusted to the schneiderian membrane and held by an assistant, so as to be readily touched by the attached electrode in use), also from the various muscles about the chest to the needles, respectively. It now became evident to all, that life was actually *re-assuming* dominion in the body; the sighing was deeper and more like a natural inspiration; the cadaveric appearance and persistent "*goose flesh*" were being replaced by more smoothness of skin, and more warmth, or at least, less clammy coldness; there were signs of sensation, moreover; there were seen tremulous motions in the limbs whenever the nasal electrode, or rectum electrode, was touched, and there was less gurgling sound in the throat.

In the course of the next half hour, the heart-beats became very apparent, and soon the pulse was found at the wrist. The respirations were now partially self-induced, and occurred even when the electrode was occasionally withheld. The man was still deaf and blind (the eyes terribly swollen), and speechless; though he now sighed, hiccupped, groaned, and struck about with his limbs. From this time the current employed was reduced one half; for already there appeared some spasms of the diaphragm and abdominal muscles. A little hot brandy and water was now poured into his mouth, and he swallowed. I touched the electro-puncture needles

no more with the current, but left them in their places for several hours. Not for one moment, as yet, were the electrodes allowed to pass into other hands, of less experience, as I knew the taper of life would yet easily flicker out, either by carelessness or by too much or too little help. I therefore took a less fatiguing position, and still holding one electrode in each hand, continued carefully watching and applying them synchronously with the more and more frequent respirations, first at every other, then at every third, then every fifth, and sixth, and so on, according as needed in strength, length and frequency of application. After a time the electrodes could be spared at times, from the respiratory department, and were therefore applied with the strongest current; now rather sweeping along over the abdomen, the spine and limbs, as if bathing him with electricity. The muscles were exercised and stimulated, the capillary circulation increased, and the reflex action became not a little aroused to the general machinery and chemistry of life.

The next six hours' procedure I will not detail, for there was nothing remarkable. At the end of that time, ten hours in all, the man became sensible, could speak, see, and take nourishment. The groanings, and other expressions of pain and unrest ceased, and he had naps of refreshing sleep. The next day reaction had set in, and he felt sore, tired and feverish, and was at times a little delirious. He has now entirely recovered, and is a well, hearty, able-bodied man, excepting his hearing, which is diminished, and he has roarings in his ears when he lies down.

Thus I have endeavored to describe faithfully and minutely the processes successfully employed in saving the life of this officer. What other power, or how much less process, could have done it? I believe the man's life would have been lost if we had relied only on the "*ready method*" and the ordinary frictions.

This case is not without instruction. Electricity, in or of itself, is not a uniform remedy. It is never a reliable aid or remedy when applied without a method, whether as galvanism (i. e., the primary current), or as Faradaism (i. e., the secondary, or induced current). But electricity, when skilfully employed, is a reliable and powerful remedy; not only adapted to such desperate cases, but equally good for a variety of other cases and conditions, when well selected and effectively applied.

PUERPERAL FEVER TREATED BY TURPENTINE.

[Read before the Suffolk District Med. Society, and communicated for the Boston Med. and Surg. Journal.]

BY N. C. STEVENS, M.D., BOSTON.

MARCH 25th, 1861, 7, P.M., I was called to visit Mrs. D., American, aged 26, of rather slender constitution. Menstruation had always been irregular until marriage, twelve months since. Had

been attended, six days ago, by a midwife, and, after an easy labor of twelve hours, was delivered of a healthy male child which weighed eight pounds. The midwife being present, stated that nothing unusual occurred the first five days after confinement. The lochia may have been rather small in quantity. The mammary secretion was abundant, and the child nursed well. On the evening of the fifth day, the patient had a chill, followed by heat, thirst, restlessness, and some delirium. On the morning of the 26th, the midwife was sent for, and gave a dose of castor oil, and in the afternoon administered two enemas, but was unable to procure a dejection.

At this stage, the following conditions were present:—position on back and sliding down in bed, with the extremities drawn up; countenance pale and anxious; pulse 150, small and wiry, but regular; skin hot and dry; tongue somewhat furred and dry; urgent thirst and general restlessness; some cough, from irritation of larynx; abdomen tympanitic and conoidal; constant and severe pain in pelvic region; acute tenderness on pressure in left groin, extending toward the right; lochia entirely suppressed; urine scanty and high colored. Ordered the following: *R.* Hydr. chlor., gr. x.; sodæ carb., *℞* iss. *M.* Also, an eighth of a grain of tartrate of antimony every two hours. Stupes of spirits of turpentine to abdomen.

26th, A.M.—During the night patient had two dejections; slight nausea; tongue not so dry; no delirium; has had two or three hours' sleep; pulse 150; abdomen more tense, but pain less acute; tenderness extends to right groin and upward; expresses great desire to sleep. Continued the antimony, with two grains of calomel and four of Dover's powder every four hours. In evening, found the patient had slept several hours during the day. Pulse 145; one dejection; urinary secretion more free. Says she feels better. All the remedies to be continued as before.

27th, A.M.—Night very restless, with delirium; features contracted and sharp; pulse 145; not much pain in abdomen; tenderness has extended above the umbilicus; several large, irregular, dark spots over the surface; some vomiting of bile during night. A blister eight by twelve inches was ordered to lower portion of abdomen. Beef tea.

4, P.M.—The patient, seen by Dr. Storer in consultation, presents all those appearances that were present in the morning. Blister has been on nine hours, and vesication is very slight. Plaster removed, and the following course prescribed, other remedies being discontinued: *R.* Ol. terebinth., 3 i., and brandy every four hours, and renewal of stupes.

28th, A.M.—Nurse says that the remedies have been faithfully administered. Pulse 140; features very sharp; alæ of nose pinched up; skin over os frontis tense and shining; slept very little; constant sliding down in bed; intellect confused; is unable

to move any of the extremities; with difficulty protrudes the tongue, which is more furred, but is moist; no cough; respiration easy, and 24 per minute; skin dry and hot; vomited several times during night; two dejections; copious secretion of urine, which is less high colored. Ordered half a drachm of terebinth. in two of brandy, every four hours; continued stupes to abdomen, and also to the inside of the thighs from the pelvis to the knees.

P.M., 6 o'clock.—Has slept some during the day; complains of the burning from the stupes; remove them; cotton batting ordered to be substituted; pulse same as in the morning; two dejections; vomited several times during day; no improvement in countenance; abdomen very tense, but not as conoidal; vesication over whole surface of blister, with free discharge of serum. Continue internal remedy, with the brandy and fifteen drops of laudanum with each dose, with as much beef tea as she will take.

29th.—Patient's countenance, if changed, is for the better; slept three hours, with less delirium; no dejection; urine very copious; vomited twice in night; physical condition of abdomen the same; pulse 140, and a trifle fuller. Turpentine and brandy to be continued the same, without the laudanum. Stupes to be re-applied to abdomen and thighs. Beef tea and calves-feet jelly.

6, P.M.—General condition as in the morning; three dejections, which were quite thin and large in quantity; abdomen possibly not so tense. Stupes to be removed and cotton substituted. Turpentine, with brandy, to be continued, with addition of laudanum. Diet, the same.

30th.—Patient slept three or four hours, and no delirium; countenance still sharp, but forehead has lost its peculiar shining appearance; pulse 135; vomits a bluish-green matter; free from pain; abdomen a little less distended, but tender on firm pressure; returning color to lips; respiration free and easy. Turpentine at 9, A.M., and 3, P.M.

Evening visit.—Find patient very restless, and as yet unable to move or to be moved, except a limb at a time; quite thirsty; cheeks slightly flushed for the first time since I saw her; two dejections during the day, with occasional vomiting; pulse 145. Turpentine and laudanum at 9, P.M. Beef tea and jelly, and new milk.

31st, A.M.—Patient asleep; restless and delirious till 12 o'clock, since then has slept some—say two hours; countenance has improved; says she feels better; pulse 130; urine continues abundant and light colored; one dejection. Turpentine and laudanum at 12 o'clock. Diet as before.

9, P.M.—Countenance looks more hopeful; tympanitic state of abdomen subsiding; one dejection since morning; pulse 134. Twenty drops of laudanum at 9 o'clock, to be repeated if necessary to procure sleep.

April 1st.—Patient looks improved; pulse 120; no delirium;

slept quiet some hours; tympanitis still subsiding, and very little tenderness on pressure; complains of burning sensation in palms of hands, and desires to hold a cold, damp napkin to allay it, which is granted; tongue quite clean, but assuming an aphthous appearance. Continue nutrition. She prefers milk, which is drank freely. *R.* Sulph. quiniæ, one half grain every six hours.

P.M., 9 o'clock.—Two dejections during the day; pulse continues as before; there is a profuse secretion of a thick tenacious mucus from throat, which gives much trouble. Continue the morning remedy, with twenty drops of laudanum, and repeat if necessary.

2d.—Patient had several hours fair sleep during the night; pulse 112; tongue dry and dark; abdomen feeling better, but deep, firm pressure shows some tenderness in pelvis. Continue milk, with wine and the prescription of yesterday.

Evening.—Pulse 120. Would have had a good day had it not been for exhaustion from effort to rid the fauces of mucus. Two dejections. Laudanum, twenty drops.

April 3d, A.M.—Some hours of sleep; mouth and throat better; pulse 118; has been turned upon the side for the first time. Ordered an ounce each of the tincture of hops and the compound tincture of cinchona, and from a scruple to a drachm of the iodide of potassium every six hours. Continue milk, and give other simples if desired.

4th.—Pulse 118; during night slight wandering; tongue clean and moist, but somewhat tender; one dejection. Desires cracker and milk. Continue the tonic.

5th.—Had a good night; improves in strength, and looks bright, and thinks she shall get well. From this time the patient continued to improve slowly, has had no relapse, and at the present writing is well.

THERAPEUTIC VALUE OF SULPHATE OF MAGNESIA, OIL OF TURPENTINE, AND CALOMEL, IN DYSENTERY.

[We print the following from an excellent article, by Prof. WILLIAM H. THAYER, in the *Berkshire Medical Journal* for August.]

Since 1852, I have followed a very different plan in the treatment of dysentery. My patient is put at once on frequently-repeated small doses of a saline cathartic. I commonly employ the sulphate of magnesia in doses of one drachm, repeated every four hours. The object is not to get rid of scybala. If I had any reason to suspect their presence, I should give a full cathartic dose of castor oil at once. The object is to relieve the inflammation (or if used at the outset, the congestion) of the mucous membrane by procuring a free serous discharge from its surface. That this effect is produced, to the great relief of the symptoms, and

usually to the speedy cure of the disease, I have frequent evidence. This will be better understood, if I describe the course. A patient is having frequent dysenteric discharges, with all the other symptoms. He gets one drachm of sulphate of magnesia in concentrated solution (which is important) every four hours. The next day I find that his discharges have become large and watery, with little mucus and less blood, are less frequent and less painful. If they have thus improved, I reduce the frequency of the salts, but have it continued every six hours. On the second day my patient has only one or two discharges, watery, and absolutely without blood or mucus. The medicine is ordered once in eight hours, and the next day I find he has had no evacuation at all, and the medicine is omitted. This is the end of the case—for he goes two or three days without any evacuation, if he is careful, and then has a natural discharge. The pain and tenesmus have usually disappeared at the end of the first twenty-four hours, without any opium whatever. This is the history of four cases in five of dysentery when I see them at the beginning. If the case is more advanced, it does not yield so readily, and may require an opiate at night, while the salts are given during the day.

I have sometimes given the salts less frequently, with less favorable results—I have had reason to think that where the symptoms did not yield, it was because the medicine was taken at too long intervals. I prefer to withhold opium, in order that the salts may have their full effect; during the first day, the patient can be soothed and relieved by sinapisms and fomentations, with flannel band around the body; and after this the pain is relieved.

My own favorable experience of this mode of treatment has been corroborated by others. I am unable to recollect the source from which I first derived the idea, but I have endeavored ever since to disseminate it, and I have had the pleasure within the last six months of seeing the plan advocated in several medical journals.

It is possible that the efficacious use of laxatives is not limited to sulphate of magnesia or to saline substances. I had a theory of their *modus operandi*, derived partly from Golding Bird—that they produced their effect by causing an exosmose of serous fluid from the inflamed mucous membrane, from which arose the necessity of using a concentrated solution. But some experiments by Headland seem to prove that the salts are taken up into the circulation before reaching the inflamed large intestine, and therefore some other explanation of their mode of action must be sought, which shall equally well account for the successful operation of some other cathartics administered in the same manner—that is, in frequently-repeated small doses. I refer particularly to castor oil. By the recommendation of Dr. West, the accomplished senior physician to the Royal Infirmary for Children, London, I have often found great benefit from the use of castor oil in small doses

often repeated, in the dysentery of children. I do not know that the sulphate of magnesia would not operate as well with children as it does with adults, but I have never used it. Dr. West's formula for the castor oil emulsion is the following:—*R.* Ol. ricini, ℥ i.; pulv. acaciæ, ℥ i.; syrupi simplicis, ℥ i.; tinct. opii, gtt. iv.; aquæ floræ aurantii, ℥ vii. *M.* Ft. mistura. A teaspoonful to be given every four hours.

I have employed it with very happy results in many cases of dysentery of a somewhat chronic character in children. It has the advantage of being not unpalatable—children generally take it without any objection.

Like the epsom salts, castor oil in some way reduces the inflammation of the mucous membrane, and the secretion of bloody mucus rapidly diminishes, simultaneously with the abatement of irritation and pain.

I have spoken thus far of dysentery and its successful treatment, as it is seen in a large majority of the cases in New England. I have had but little experience with malignant dysentery or with grave epidemics, for they are extremely rare in New England. I have no reason to think that the saline treatment would have the slightest influence in malignant dysentery. But in most of the cases that are met with during even a serious epidemic, I have little doubt that, if employed early, it will be found as effectual as it is in the milder form that it takes among us almost every summer and autumn. Its use is not inconsistent with the employment of stimulants, when they are required.

If, nevertheless, there are at any time non-malignant cases which do not yield at all to the use of saline medicines, or which, after a partial improvement, continue in a subacute form, what course promises the greatest and promptest success?

Let me first say that if the dysentery has yielded, but the patient is affected with diarrhœa, astringents and antacids with opium are the most appropriate remedies.

If after two or three days' employment of the saline, the discharges continue to be of bloody mucus, and there is little abatement of the other symptoms, it is time to resort to other expedients. In that case, I presume, no treatment promises better than a mercurial—a small dose of calomel, with opium, every six hours—under which we may reasonably expect a decided change for the better in the character of the evacuations, before enough has been taken to cause any considerable risk of ptyalism, except where there is an unusual sensitiveness to its effects.

I should say that I have very rarely been obliged to resort to mercurials with adults—for I have found very few cases that did not yield to the sulphate of magnesia. But in the "inflammatory diarrhœa" (West) of children, I have frequently prescribed small and repeated doses of calomel, with opium, when other measures failed, and usually with promptly good effect.

From some experience with the oil of turpentine, I am inclined to regard it as a remedy very similar to mercury in its effects upon the intestinal mucous membrane. I have employed it more especially in the dysentery of children. When the castor oil emulsion has been taken several days or a week, and the child, after a partial abatement of the symptoms, has ceased to improve, the addition of a few drops of the oil of turpentine to each dose often has a decided effect upon the symptoms, so that the improvement in the evacuations begins again, and in a few days more they have acquired their healthy character and number. This is the history of favorable cases, which in infants are of course less frequent than in adults.

The value of turpentine in chronic inflammations of the mucous membrane is perhaps sufficiently well known. Professor Wood has brought it into notice as a very useful remedy in an advanced stage of typhoid fever, especially on account of its prompt effect upon the ulcers of Peyer's patches, in promoting their cicatrization.

Three cases of chronic inflammation of the large intestine of moderate extent, mostly in the rectum in two of the cases, have been under my care within a few months past. They were all treated with the oil of turpentine in three daily doses; all began to improve in a few days, and two entirely recovered.

Turpentine is especially useful in dysentery when the first stage of active inflammation has passed, with dysenteric symptoms still remaining, and the patient presenting an appearance of morbid prostration—exhibiting, in fact, a condition evidently requiring stimulation: feeble pulse, and livid extremities, with tendency to coldness of the surface, and perhaps the tongue dry and the teeth covered with sordes. Dr. Wood makes the dry black tongue and the sordes the indication for the use of turpentine in fever. He says: "There is a particular state of fever usually attended with much danger, in which we have found this remedy uniformly successful. The condition of things alluded to, is one which occurs in the latter stages of typhoid fevers or lingering remittents, in which the tongue, having begun to throw off its load of fur in patches, had suddenly ceased to clean itself, and becomes dry and brownish. The skin is at the same time dry, the bowels torpid and distended with flatus, and the patient sometimes affected with slight delirium. Under the use of small doses of oil of turpentine, frequently repeated, the tongue becomes moist and again coated, the tympanitic state of the bowels disappears, and the patient goes on to recover as in a favorable case of fever. We are disposed to ascribe the effect to a healthy change produced by the oil in the ulcerated surface of the intestines."—(*U. S. Dispensatory*, *Art. Oleum Terebinthinæ*.)

With regard to the use of calomel in dysentery, there appears to be reason for doubt that its efficacy depends upon any direct

influence over the functions of the liver, as is very frequently alleged by medical men, or that the necessity for its exhibition rests on any hepatic complication. I shall only argue against these suppositions by the statement of two or three facts of modern observation.

It has been inferred from the green color of the evacuations, that is often seen after calomel has been taken, that an excessive flow of bile had taken place into the intestine, under the immediate influence of the mercurial upon the liver. "The green stools," says Pereira, "which sometimes follow the administration of calomel to children, are usually supposed to arise from the action of this medicine on the liver; though Teller thinks it depends on alterations produced in the condition of the blood. The same colored stools are frequently observed when no mercury has been used, and there does not appear to be any just ground for ascribing them to the calomel." It will be remembered that one of the first results of a slight exposure to cold in an infant, is the passage of green stools, with griping pain. West says, that in some cases the green discharges probably depend on the action of the acids of the alimentary canal upon the coloring matter of the bile (biliverdin) in the evacuations—which is probably the explanation of these cases of green stools following a chill. When the discharges are greenish in the course of dysentery, Golding Bird's investigations have rendered it probable that it results partly from the presence of altered blood in the evacuations.

Thus we have one fact—that the green stools are very common under various circumstances, unconnected with the use of calomel.

Another fact is, on the authority of Dr. Thudichum, of London, that calomel, whether it purges or not, does not increase the quantity of bile excreted, but on the contrary diminishes it. If the liver is relieved by the use of calomel, it is through its effect upon the intestines and the portal circulation, just as it would be relieved by other cathartics. This is proved by experiments of H. Nasse, Kölliker, and M. Müller. The green color of the stools which follow the use of calomel is really due to sub-sulphide of mercury, just as the black color of stools following the use of preparations of iron, is due to sub-sulphide of iron.—(*Thudichum.*)

We have reason, then, to know that calomel does not produce that increase in the biliary secretion and discharge, which many have considered indispensable to the relief of various cases of intestinal disturbance. And we may fairly infer that whatever advantage is derived from the use of calomel, as of turpentine in dysentery, is due to its direct effect upon the capillaries of the intestine, as a special stimulant.

Whether turpentine might not be employed with as great advantage as calomel in cases that seem to require either of them, my own experience will not allow me to say. I have seldom used

calomel since I began to treat dysentery with sulphate of magnesia, nine years ago. Calomel would be unsafe in a very advanced stage of the disease, when there was any pus in the discharges, and the vital force was low—while these are the very conditions in which the use of turpentine, a nervous stimulant, would be especially appropriate.

Bibliographical Notices.

The Pathology and Treatment of Venereal Diseases. By FREEMAN J. BUMSTEAD, M.D., New York. Blanchard & Lea, Philadelphia, publishers.

It requires no inconsiderable courage, now-a-days, to write a book upon any-scientific subject, even when the facts alleged are undisputed, and the doctrines based thereupon meet with general acceptance; his action, therefore, implies a hardihood almost verging upon audacity, who puts forth a work which presents entirely new views, and advances theories directly contravening those entertained by the major part of its readers; and that, too, upon a subject which has always furnished matter for differences and discussion, and about which even its greatest modern authority seems hardly to have settled his views, if we may judge from the yet recent changes in opinion ascribed to M. Ricord. Such is the case, however, with the book which we propose briefly to notice in the present article.

Let us premise that it is the production of a young New York surgeon, who has more than begun to attain a well-merited reputation for special skill in ophthalmic surgery, and in the treatment of venereal diseases. He is favorably known also as the translator and editor of Ricord and Hunter's Treatise on Syphilis.

As he remarks in his preface, "the additions to our knowledge of venereal, during the last ten years, have been numerous and in the highest degree important. Among the most remarkable may be mentioned *the distinct nature of the two species of chancre*; the innocuousness of the secretion of the infecting chancre, when applied to the person bearing it, or to any individual affected with the syphilitic diathesis; the removal of certain obstacles to a general belief in the contagiousness of secondary lesions; the fact that syphilis pursues the same course, whether derived from a primary or secondary symptom, commencing in either case with a chancre at the point where the virus entered the system; the definite period of incubation of the true chancre, and of general manifestations; the inefficacy of the abortive treatment of syphilis; and the phenomena of syphilization and their correct interpretation."

Such is the startling programme with which our author enters upon his labors; we say, startling, for truly to one taught in the doctrines on this subject which prevailed in the schools some twenty years ago, no milder term seems appropriate; and yet a careful perusal of the work has satisfied us that the author has ably maintained his positions, and has almost persuaded us that our previous faith in regard to syphilis was founded in error; it has also made plain many things which heretofore have greatly puzzled us in the study of this disease; and

above all, it has vastly increased our horror in respect of the fearful nature of the genuine syphilitic affection. The reader will infer from the above, that we are very favorably impressed by Dr. Bumstead's treatise, and though we do not intend to speak of it in terms of unqualified approbation, it is no part of our present design to hunt up and set forth its imperfections, if any are to be found. All that we propose to do at present, is to examine the book very briefly, pointing out whatever we think deserves special attention, but drawing no invidious comparisons between this and other works on the same subject. One thing, however, we are impelled to say, that we have met with no other book on syphilis, in the English language, which gives so full, clear and impartial views of the important subjects on which it treats.

The first part of the work is devoted to "Gonorrhœa and its Complications." Of this we shall have very little to say beyond the remark that the facts and arguments adduced by Dr. B., in our opinion, fully set at rest the vexed question of the identity or community of syphilis and gonorrhœa; for nothing, so it seems to us, can be plainer than the distinct nature and origin of the two affections. As for the rest, this does not differ materially from other recent writings on this branch. We cannot, however, refrain from expressing our satisfaction with the full and perspicuous manner in which the subject has been presented, and the careful attention to minute details, so useful—not to say indispensable—in a practical treatise; the time and labor which have been devoted to these, we consider well bestowed.

We pass now to the second part of the work, which is by far the more important portion; and here, at the very outset, our old-fashioned notions are rudely disturbed simply by the caption or prefix—"The Chancroid, its Complications; *and* Syphilis." We have italicized the conjunction, because it is in this relation a most significant particle. Have we, then, been laboring under a mistake all our professional life, and treating as syphilis all sorts of ulcers on the genitals, known to have originated from impure connection, as if but for prompt interference the patients were in danger of grave constitutional results, when with better knowledge we might have dismissed our anxieties, and in the majority of cases have encouraged our patients to hope for a speedy and effectual cure? We fear that ours is by no means a singular or uncommon blunder; for all chancres—so called—are not syphilitic, according to Dr. B., who proceeds in the "Introductory Remarks" to describe and explain the distinctions between the two lesions heretofore, and still, generally, believed to be varieties of one and the same morbid affection; one of these is the soft, non-infecting or simple ulcer, to which he would confine the name "chancroid;" the other is the true, hard, infecting chancre, "the initiatory lesion of acquired syphilis." A mere analysis of these "remarks" would not do the author justice, and would hardly suffice to present even a satisfactory summary of his reasons in favor of "the duality of syphilis." We commend them to the close attention of the profession. Let them be read, examined and pondered. It seems to us that this is the cardinal point of the new or modern view of syphilis; the hinge on which must turn its true conception and successful treatment. That it is one of vital importance to patients, may readily be perceived; and as all such medical facts have, moreover, a moral and frequently a social bearing, let this be considered in these lights. If, as our author be-

lieves and affirms, the true syphilitic virus, when once inoculated into the human system, affects it as surely and radically as does variola or vaccinia, what becomes of the abortive method of treatment, as it is termed? And if the disease or diathesis, when once established, is so exceedingly obstinate and persistent that its thorough and complete eradication is well nigh impossible, how greatly should it enhance our estimate of the disease, and increase our watchfulness of the symptoms, and our care to prevent or limit the spread of its infection! Here, indeed, may we see a fulfilment of the threat that the sins of the fathers shall be visited upon the children, even "unto the third and fourth generation."

We must confess our inability to refute the arguments, or to explain away the facts, alleged in support of this theory of the duality of syphilis. Indeed, on no other hypothesis can we account for numerous strange phenomena often observed by us (as doubtless by other physicians) in the management of syphilitic cases. Heretofore it has seemed to us, so numerous were the exceptions, that there was no general law governing such cases, but that each was "a law unto itself," or rather a case by itself, in the conduct of which, one could not confidently appeal to experience, or rely upon assistance from analogy. But if the fact of duality is sustained (and we do not see how it can be overthrown), much of the difficulty vanishes, and the cases which may offer themselves will be readily ranged under one of two classes, each having its own laws; and thus being systematized in the same way as any other of the diseases commonly encountered, they may be attacked more hopefully, perhaps confidently, because intelligently.

We would also direct special attention to the statement respecting a definite "period of incubation" of the symptoms of syphilis. If an established fact, it is of course a highly significant and important one, and should be carefully observed and noted by those engaged in the study of these diseases. Our limits will not allow us to examine in detail the other important and interesting features of the programme, as quoted by us in the commencement of this paper. We would, however, particularly specify the remarks on the "Contagiousness of Secondary Symptoms" as well worthy of consideration; nor shall we have space to notice the chapters which our author has devoted to the Various Complications and Sequelæ of Syphilis. All of them will amply repay a careful perusal, and while they contribute their quota in augmenting the value of the book, will also add much to Dr. B.'s reputation as a close observer and judicious physician, who has made the most of his extended opportunities for study and investigation, at home and abroad.

In the matter of "Treatment," passing by the ordinary and generally recognized methods, which, by the way, are clearly and minutely described in the book, we come to a novelty which will perhaps shock the moral sense of many of its readers, as well as excite their incredulity in a medical point of view. We refer to the practice of syphilization, as it is termed; by which is meant simply the inoculation with syphilitic virus, either by way of prophylaxis or cure. As regards the former—syphilitic inoculation of a healthy person, as a preventive, on a principle analogous to vaccination—the idea was very soon abandoned even by its author; but its practice as a curative agent upon those already diseased, has met with more favor, and will probably come into some-

what more general use, if repeated experience shall confirm previous results. It is barely ten years since Sperino, an Italian physician, made public the process, and he has already had many disciples or imitators on the other side of the water. Medical men on this side, perhaps, will be slow to take up the plan, but still will have to follow where truth shall lead, or point the way. Dr. B., without advocating this practice, has fairly presented all that can be said in its favor.

This paper being intended rather as a notice than a critical review of Dr. Bumstead's book, we shall not extend it farther than to advise those who wish to be posted in the latest and most reliable information respecting venereal diseases, to avail themselves of Dr. B.'s labors. The work is evidently written with care, and, as far as we can judge, in a fair and candid spirit. Especially would we commend it to the attention of "country practitioners" and those not conversant with, or not having access to, works written in foreign languages, who wish to know what our brethren abroad are teaching and doing in regard to this extensive and formidable class of diseases, as Dr. B. has liberally drawn upon foreign authorities (of course with the proper credit) whenever they could more forcibly illustrate his own views or confirm his own experience.

It would hardly be just to the publishers, Messrs. Blanchard & Lea, to omit saying that the book is handsomely "got up," and is printed with clear and distinct type on excellent paper. The illustrations also are quite equal (we think a little superior) to the average in American books; and, in conclusion, if we may be pardoned the use of a phrase now become stereotyped, but which we here employ in all seriousness and sincerity, we do not hesitate to express the opinion, that Dr. Bumstead's *Treatise on Venereal Diseases* is a "work without which no medical library will hereafter be considered complete." C.

The Modus Operandi of various kinds of Baths, Sea Bathing, Heat and Cold, physiologically explained. By JOHN O'REILLY, M.D., Fellow of the Royal College of Surgeons in Ireland, &c. &c. New York. 1861. Pp. 23.

The Modus Propagandi of the Human Species physiologically explained. By the same Author. New York. 1861. Pp. 28.

THE subjects treated of in these pamphlets are of no little importance in themselves, and seem to have been carefully considered by the author. We do not perceive much that is very new in them. The latter, on the subject of propagation, contains the following explanation of the origin of certain cases of epilepsy, which we do not recollect to have before noticed. In alluding to the act of coition, he says the suspension of respiration at the close of the act "is isochronous with the shock communicated to the whole frame on the emission of the semen; the electricity or vital fluid given off by the pulmonary organic glands, to unite the oxygen of the air with the venous blood, has its operation for a moment interrupted, it being necessary that such should take place in order to propagate life to another individual; therefore the electric or vital fluid, instead of being given off by the pulmonary glands for the purpose of continuing life in the usual way, has its course changed, and directed to the semen just being discharged. Thus it is that man imparts a portion of his own life to his offspring; hence it is that derangement of the organic nervous system

is communicated from one individual to the other, as, for instance, epilepsy; hence it is that the offspring of drunkards are often afflicted with epilepsy and other diseases of a nervous character."

Tenth Annual Meeting of the Illinois State Medical Society, held in Paris, May 8th and 9th, 1860. Chicago. Pp. 226.

This pamphlet, besides the minutes of the annual meeting, contains an address by the Permanent Secretary, Dr. N. S. Davis, and the valedictory address of the retiring President, Dr. David Prince, of Jacksonville, together with several valuable reports on medical subjects. We have not had time as yet to more than glance at the contents, but we infer, from the nature of the subjects and the length at which they are treated, that they are the result of much industry and research. The officers for the ensuing year are:—*President*, Dr. Wm. M. Chambers, of Charleston; *Vice Presidents*, Dr. T. K. Edmiston, of Heyworth, and Dr. H. R. Paine, of Marshall; *Treas'r*, Dr. J. W. Freer, of Chicago.

THROUGH the kindness of the publishers, Messrs. Lindsay and Blakiston, Philadelphia, we have received the Physician's Visiting List for 1862. This useful little pocket companion is too well known to require any special notice. We observe, however, that in the list of antidotes for poisons no mention is made of tannin as an antidote for strychnia, a very important omission in our opinion; nor is anything said of the extraordinary power of liquor potassæ to neutralize the narcotic effects of belladonna. We would suggest also that, as the Sylvester method for restoring suspended animation has been resumed in England to some extent in place of that of Marshall Hall, which had for a time superseded it, it would be well to add it to the means recommended for the restoration of persons under the influence of strychnia.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 5, 1861.

THE USE OF STIMULANTS AS A BEVERAGE.—A few weeks since we referred to the use of stimulants in the treatment of disease, for the purpose of contrasting the method of Dr. Todd with that pursued by Dr. Gairdner, of Edinburgh, in the Infirmary under his charge. The social use of stimulants as a physiological rather than a moral question is still under discussion in England. A community in which the consumption of these articles is so enormous cannot easily submit to the deductions from Dr. Carpenter's total abstinence opinions, and as a consequence we find able and elaborate arguments in defence of the almost universal custom. Without for a moment accepting as true, with reference to our communities, the statement of Dr. Brinton, in his late work on Food and Dietetics, that "it is singular how few healthy teetotallers are to be met with in our ordinary inhabitants of cities," and adding that after an examination of many thousands of individuals, during a period of many years, with special reference to

this question, he was obliged to confess that he had met with very few perfectly healthy middle-aged persons successfully pursuing any arduous metropolitan calling under teetotal habits, we can yet see much that is reasonable and sound in an article on the question by Daniel Hooper, B.A., M.B., published in the London *Lancet*, from which we make the following extracts, regretting that we have not room for the whole paper :—

“In studying the physiological action of alcohol upon the human body, we must never forget that it is one of that large class of agents whose influence varies, not simply in amount, but in kind or quality, according to the quantity administered ; so that the effects of a large dose will be, not a mere *multiple* of those of a small one, but of a totally different character. In some few cases, as those of lying or stealing for instance, quantitative difference does not produce qualitative difference ; but in the majority of cases it does. A certain temperature produces ice—a higher one, steam ; a certain weight bends a spring—a heavier one breaks it ; a short mountain walk invigorates the body—a long one weakens it ; a few hours’ study may innervate the brain—a few hours’ more may enervate it. And may not, also, a certain amount of alcohol, tea, coffee, &c., strengthen the nervous system, and a larger one weaken it ? Or is alcohol mischievous in *all* proportions, whilst tea, coffee, study, &c., are not so ? Cause must be shown why alcohol is to be excluded from the class of agents which do good in moderation, and harm in excess. * * * * *

“My own observation and reflection have led me to believe that alcoholic drinks are highly useful, if not necessary, articles of regular, daily consumption for vast numbers of persons ; but that their kind and amount must be determined by age, sex, constitution, mode of life, and other circumstances. I believe they are more necessary for those whose avocations involve head-work, anxiety, and wear and tear of brain, than for such as lead a comparatively animal life, or one of mere bodily labor. And I think it will be found that the degree of *refinement* of the alcoholic liquor required is in tolerably exact ratio to the expenditure of brain-power. The agricultural laborer, for example, is satisfied with ginger-beer, or very poor home-brewed beer ; the working classes of London with porter ; clerks and shopkeepers with bitter ale ; and barristers, judges and members of parliament with wine. In fact, we find a gradation of brain-work corresponding pretty exactly to that of the refinement and alcoholic power of the liquor habitually and instinctively made use of. On the continent, also, we see illustrations of the same fact—the strength and refinement of the wines consumed gradually rising with the exaltation of the brain-work of the consumers. Nor is this owing, as might be supposed, entirely to difference of rank or pecuniary resources ; for every man finds the same fact illustrated and corroborated in his own experience. We all find, when on our tours in Switzerland or the Highlands, where we enjoy pure air, good food, and rest and recreation of brain ; when, in short, we are living rather an animal than an intellectual life, we care nothing for, and do not require any sort of, alcoholic liquor ; whereas, when engaged in our profession or business in London, in the midst of bad air, noise, hurry, bustle, competition and excitement, we are conscious of an unmistakable craving for a certain amount of alcohol with our daily food ; the reason being that, in the one case, we are doing everything to refresh and fortify, and in the other to exhaust and wear out, the nervous system. This fact goes far to prove that alcohol, in some peculiar but as yet unexplained way, *does* repair nervous tissue.

“In estimating the value of alcohol, the experience and testimony of healthy persons who use it habitually, and in moderation, ought to be taken into account ; also the fact that in all ages, and in every corner of the globe, man has discovered a method of preparing it. There are persons who do very well without alcohol ; but this is no proof that it is useless to others. There are country districts where the laborers are strong and healthy without meat, and with beer almost as weak as water ; but does it follow that the same fare would suit the London lawyer, barrister, judge, or member of Parliament ? No, the two cases are totally different. Men whose labor resembles that of horses may and do live, like horses, upon corn and water ; but those who are calculating, thinking, and reasoning

twelve hours out of the twenty-four, require a more refined sort of food and drink. A ploughboy will look fat and rosy upon his bread and cabbage and hard pudding and water; whilst a Gladstone will require, besides these, good animal food, tea, coffee, and an alcoholic liquor of great purity and refinement. If the brain-work of the London clerk demands a supply of Bass's ale, that of the working statesman will require something approaching ænanthic ether!

"Two arguments used by total abstainers require a short notice. They maintain that alcoholic liquors cannot afford any real and permanent benefit, because they contain little or nothing of a *solid* nature (as proved by evaporation to dryness). But if this proves the worthlessness of wine, so does it of tea and coffee! The fact is, experience has proved that all these agents, in spite of their unsubstantial nature, do refresh the wearied brain and nerves, and impart new life and health to the spirits. Exercise, fresh air, recreations, study, tea, coffee, and cigar smoke, are all devoid of solidity; but the argument that they are *therefore* incapable of imparting anything to the human body is still more so. On the contrary, we know that exercise does add bulk and weight and substance to the muscles; that fresh air does redden and enrich the blood; that recreation and study do nourish the brain and nerves; that tea and coffee and alcohol do, at any rate, prevent a waste of the tissues (and probably also directly nourish the nervous system); and that moderate smoking, by soothing and calming the over-busy and excited brain, prevents its exhaustion and waste; in short, some of the least material agents have the most real, powerful, and beneficial influence upon the human body. Again, teetotallers contend that, in the case of alcohol, it is impossible to define moderation and success, since what is moderation to one man is excess to another, and *vice versa*; but this is equally true of salt, sugar, tea, coffee, and many other things, moderation and excess in which they regard as tolerably well defined by common consent. The truth is, there is a certain recognized standard quantity of alcohol, salt, sugar, tea, coffee, &c., which all men agree to call *moderate*, and the difficulty is not greater in the case of alcohol than of any other article of daily consumption. The man who eats a leg of mutton at a meal, or consumes a pound of salt, or drinks a gallon of beer per diem, is looked upon by the public as a monstrosity, an exception, a wonder! whilst he whose daily consumption is one sixteenth of these articles is regarded as an ordinary individual—a type of the masses; in short, the excessive and the moderate man are as well known and as easily recognized as are any of the types and their deviations in the animal and vegetable world. It is idle and absurd to pretend that the boundary line between moderation and excess is indefinable. I believe every man knows where it is, and when he has overstepped it, even although, from long habit and blunted sensibility, the transgression may have little effect upon him. The soldier's rations and the diet-lists of our great hospitals, are so many proofs that *there is a standard* in these matters, well understood, and that public institutions, in their dietetical arrangements, do not contemplate or provide for monsters who eat a leg of mutton and drink three gallons of beer per diem!"

MEDICAL APPOINTMENTS IN THE U. S. ARMY.—By a general order issued on the 20th of August, the following gentlemen have been appointed Brigade Surgeons:—George H. Lyman, of Massachusetts; F. H. Hamilton, New York; Henry S. Hewitt, New York; J. H. Brinton, Pennsylvania; John A. Lydell, New York; John C. Dalton, Jr., New York; George Suckley, New York; Henry Bryant, Massachusetts; P. W. Ellsworth, Connecticut; Luther V. Bell, Massachusetts; S. W. Gross, Pennsylvania; David Prince, Illinois; A. H. Hoff, New York; W. H. Church, New York; Joseph W. Freer, Illinois; Rufus H. Gilbert, New York; J. E. Quidor, New Jersey; Charles McMillin, New York; Charles O'Leary, Ohio; J. G. F. Hosilton, District of Columbia; A. B. Campbell, Pennsylvania; J. V. Z. Blaney, Illinois; Thomas Sim, Illinois; J. S. Bobbs, Indiana; Peter Pineo, Massachusetts; Wm. E. Waters, District of Columbia; O. Martin, Massachusetts; J. H. Banch, Illinois; William B. Stewart, Indiana; N. R. Derby, Pennsylvania; Daniel McRuer, Maine; S. R. Haven, Illinois; A. E. Stocker, Pennsylvania; T. Owen, Pennsylvania; W. C. Thompson, Indiana; James King, Pennsylvania; J. Rush Spencer, New York; J. D. Robinson, Ohio; William Glendennin, Ohio; George G. Shumard, Ohio.

MEDICAL DEPARTMENT OF PENNSYLVANIA COLLEGE, PHILADELPHIA.—All the members of the Faculty of this department have resigned their chairs. The reason assigned is a disagreement between the Faculty and the Board of Trustees of the Department (controlling the College Building), in regard to the expenses of the institution, in view of the expected reduction of the medical classes during the war.—*Medical News and Library*.

SURGICAL APPOINTMENTS FOR MASSACHUSETTS VOLUNTEERS.—Dr. Samuel A. Green, Assistant Surgeon of the First Regiment, M. V., has been designated as Surgeon of the new regiment to be recruited by Maj. Stephenson, of the Fourth Battalion. Dr. F. L. Munroe, late of Major Cook's Battery of Artillery, has been appointed Assistant Surgeon of the First Regiment.

IN addition to the public withdrawal of Dr. Peters, of New York, from the homœopathic ranks, as stated in the JOURNAL of the 22d ult., three other physicians of that city, recently homœopathic practitioners, publish in the *Medical Times* a declaration, absolving themselves "from any and all medical sects," and reserving to themselves the legitimate title of physicians and surgeons. The names of these gentlemen are—Ed. P. Fowler, M.D.; Wm. Faulkner Browne, M.D.; and W. O. McDonald, M.D.

THE medical officers of the volunteer forces in and about Fortress Monroe—seventeen in number—furnish to the *Medical Times* a denial of the statement made recently that there was a *marked prejudice* against the service of the volunteer surgeons on the part of the Medical Director and his associates of the regular army.

IN the *British American Medical Journal* for August we detect an error in its notice of the new anæsthetic, kerosolene. The experiments referred to, upon himself and others, were made by Prof. Henry J. Bigelow, not by Dr. Bowditch.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, August 31st, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	40	64	104
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	54.8	48.3	103.1
Average corrected to increased population, . . . . .	..	..	114.4
Deaths of persons above 90, . . . . .	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
16	16	2	4	4	0	1	5	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.121	Highest point of Thermometer,	81.0
Highest point of Barometer,	30.354	Lowest point of Thermometer,	53.0
Lowest point of Barometer,	29.884	General direction of Wind,	W.S.W.
Mean Temperature,	67.6	Am't of Rain (in inches)	0.00

DIED.—At Wayland, 29th ult., Ebenezer Ames, M.D., 73 years, 2 months.—At Framingham, Sept. 2d, Dr. Simon Whitney, aged 64.—In this city, Sept. 3d, of disease of the heart, after a few days' illness, Thomas Robert Owens, M.D., 36.

DEATHS IN BOSTON for the week ending Saturday noon, August 31st, 104. Males, 40—Females, 64.—Abscess, 1—congestion of the brain, 3—disease of the brain, 2—inflammation of the brain, 1—cancer (of the uterus), 1—cholera infantum, 16—consumption, 16—convulsions, 3—croup, 2—cyanosis, 1—debility, 1—diarrhœa, 3—dropsy, 2—dropsy of the brain, 3—drowned, 1—dysentery, 1—epilepsy, 1—scarlet fever, 4—typhoid fever, 5—gastritis, 1—hemoptysis, 2—homicide, 1—infantile disease, 5—disease of the kidneys, 1—inflammation of the lungs, 4—marasmus, 4—old age, 3—peritonitis, 1—premature birth 1—puerperal disease, 1—syphilis, 1—tabes mesenterica, 1—teething, 2—thrush, 1—ulcers, 1—unknown, 3—inflammation of the uterus, 1—whooping cough, 3.

Under 5 years of age, 59—between 5 and 20 years, 7—between 20 and 40 years, 20—between 40 and 60 years, 13—above 60 years, 5. Born in the United States, 74—Ireland, 24—other places, 6.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, SEPTEMBER 12, 1861.

No. 6.

HINTS TO ARMY SURGEONS.

BY CHARLES T. JACKSON, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

It may be thought impertinent, in one who is exclusively a chemist, to venture any suggestions for the consideration of surgeons, now employed in the armies of the United States; but it should be remembered that I have spent much of my life in the study of medicine and surgery, and have had uncommonly good opportunities for observing military surgery in France, after the revolution of July, 1830, and in the insurrection of June, 1832. This must be my apology for obtruding a few remarks, which, though they may not be new to many surgeons, will perhaps be useful suggestions to some, and especially to those who have heretofore had no opportunities for improvement in this kind of knowledge.

Gun-shot wounds, I know, have much changed in character since the introduction of improved projectiles—the minié and slug balls in particular; and therefore improved instruments, adapted to the extraction of such balls and the fragments of bone, should have been prepared. The old-fashioned ball-forceps, adapted to the extraction of a round bullet, are entirely unfit for the extraction of a minié ball or conical slug. Charrier's polypus forceps are vastly preferable, for instead of dilating at the orifice of a wound, where it is most tender, they actually, for the diameter of any bullet, diminish as to the space they occupy, owing to the crossing of the blades below the fulcrum. This instrument is the best I have ever used for the extraction of a ball, or of fragments of bones, bits of cloth, and other foreign bodies carried into a wound. They are strong enough, and yet are light and portable, serving in place of the common dressing forceps, for all common operations, while they are amply sufficient for the removal of a ball. They are also so light, that they will, in most cases, serve in place of the probe, in explorations, and are long enough to reach to any required depth into a wound. I therefore recom-

mend them to all army surgeons, who, if they are not supplied with them now, will find them to be an exceedingly valuable addition to their operating or dressing cases. I brought from France the first pair of these instruments ever seen in this country, and Dr. John C. Warren borrowed them and had others made here for his own use, and for the Massachusetts General Hospital.

When a round ball strikes a cylindrical bone, it simply breaks it, and not unfrequently the ball itself is split into two pieces, or it is flattened and glides off into the soft parts. The round-ball forceps are not fit for the extraction of the fragments of lead, nor of the comminuted fractured bones. If a round ball strike a bone, having in its interior a mass of cancellated structure, such, for instance, as the condyles of the knee-joint, the bone is not fractured into fragments, but the ball penetrates the hard shell on the exterior, and beds itself in the cancellated bone, if it does not pass entirely through the joint. If it does pass through, the orifice of exit of the ball will be much larger than where it entered, and there will be some splinters of the hard shell of bone torn off, and the proportion of these fragments will be greater, in direct ratio to the diminished velocity of the ball.

The minié ball, when it strikes the shaft of a long cylindrical bone, generally splits it for a considerable distance, especially if it strikes the bone fairly in its middle. The ball itself is more rarely divided, though it is flattened and compressed sometimes on its sides, when it is not supported, owing to its cavity at the base. If it strikes the side of a bone, it glances to one side very strongly, and will not be found in the direction in which it entered, and it is often very difficult to find where it is lodged, until inflammation reveals the spot.

In order to compare the effects of the common round and the conical minié ball, I took eight one inch pine boards and nailed them together, and then fired the two kinds of balls through the mass of board from a rifled carbine. The round ball made a hole gradually enlarging as it entered, and splintered the board somewhat; but the minié ball entered the first thickness of boards, making a smooth round hole, but split the further half of them all to pieces, tearing off, as it passed out, large splinters of the wood. The effect of a ball, the force of which is partially suspended, will evidently be more destructive than when having its full velocity. It is observed, too, by all who have used a minié rifle, or any of the breech-loading guns, that in close action the men are more likely to over-shoot their adversaries, than they would be if they employed the common musket or rifle, not prepared for long range. Indeed, many of the breech-loading guns I have seen, have no provision for sighting at near objects, and it is difficult to hit a mark nearer than one or two hundred yards; therefore soldiers will really run much less risk, in charging boldly upon troops employing these weapons, than by carrying on a distant fusilade.

Leaving this subject, let me ask our army surgeons to prepare statistical tables of their operations in which they use anæsthetic agents; whether ether, chloroform, or the mixture of these two anæsthetics. It is very desirable that we should have the means of making a careful comparison of the effects of ether and of chloroform, and especially as to the ultimate effects they may produce on the healing of wounds. Ether is known not to delay or prevent healing by first intention. Is it true also with regard to chloroform?

We wish, also, by an extensive tabular statement of cases, to compare the mortality of operations under these two anæsthetics, and also with those in which four measures of ether and one measure of chloroform are employed; this being the preparation I have recommended for army use, in case the surgeons cannot carry so bulky an article as ether.

The subjoined table of a few cases, from *Benisson's Méthode Anesthésique*, will perhaps serve as a model for the record, and those who please may add more side columns for such other remarks as they may wish to enter on the record.

Table of Cases.

No.	Date.	Nature of Operation.	Sex.	Age.	Anæsthetic.	Healed.	Died.
	1847						
1	March 4	Amputation left arm	man	43	Ether.	In 20 ds.	
2	" 22	" right leg	man	30	"	23 ds.	
3	April 25	" left thigh	man	22	"	15 ds.	[ritonitis
4	May 3	Lithotomy by perineum	boy.	11	"		17th d., pe-
5	" 28	Extirp. rt. br'st; cancer	wom.	59	"		5th d., pleu-
6	Aug. 12	" cancer rt. breast	wom.	30	"	12 ds.	risy.
	1848						
7	Aug. 3	Amputation rt. leg	man	36	Chloroform	15 ds.	
8	July 10	" rt. arm	man	23	"	20 ds.	
9	Aug. 3	Extirp. cancer rt. br'st	wom.	36	"	1 mo.	
10	March 3	{ Cancer of the lip, tumor involving the sub-hyoide- an region.	man	40	"		{ 12 ds. aft. opera.

Remarks may be added in full, by reference to the numbers, so that all the particulars which cannot be conveniently tabulated may be introduced; such as a description of the disease for which the operation was performed, the condition of the patient, the time which the operation required, the treatment after the operation, and, in cases of death, the opinion of the surgeon as to the cause.

THE CYSTICERCI OF TÆNIA IN MAN.

(Continued from page 545, vol. lxiv.)

SPECIAL CHARACTER OF THE CYSTICERCI OF TÆNIA OBSERVED IN MAN.—In summing up the observations of writers, we find the following cysticerci of *tænia* have been met with in man:—the C.

echinococcus, *C. turbinatus*, *C. melanocephalus*, *C. solium* (cellulosæ), *C. tenuicollis*, and possibly *C. serratus* (pisiformis) (?).

The *C. echinococcus* (acephalocyst), not invaginated, presents the following peculiarities: its body oval, one eighth to one half of a millimetre in length, its surface covered with minute granulations or smooth when mummified. Head quadrilateral, armed with a double row of tenacula, usually thirty or forty in number, sometimes over one hundred, whose greatest length is $0^{\text{mm}},035$, which are arranged about a blunted rostrum furnished with four suckers and separated by a constricted portion from the body (bladder or caudal vesicle). The caudal vesicle is filled with an uncolored liquid, its inner surface covered with rounded corpuscles, of variable number, and is terminated by a depressed cicatrice, by means of which, with the assistance of a short pedicle, the animal adheres to the maternal echinococcus.

The maternal echinococcus or hydatid vesicle is covered with a spherical envelope, of variable regularity, formed by concentric layers, more or less thick and distinct, of an amorphous, hyaline, elastic, friable matter, produced by secretion from the body of the echinococcus. The last is distended with liquid, and is spread out on the inner surface of this envelope in the form of a very thin yellow membrane, whose inner surface is studded with young and adult echinococci, which present themselves to the naked eye of the observer as very minute granules. The young echinococci change gradually into mother or producing echinococci. These last may also contain other mother echinococci, and daughter or secondary hydatid vesicles, whose number and development vary, to the extent of three, four or five successive generations.*

The primitive generating echinococcus has at times a diameter of more than $0^{\text{m}},15$. Its spherical form is often altered by the peculiarities of structure or vicinity of the organ in which it is lodged. It is like all the cysticerci of the *tænia*, contained in a fibrous cyst, with which it has no adherence. The *C. echinococcus* changes into the *tænia echinococca*, found in the intestinal canal of the dog.

The *C. turbinatus*, whose caudal vesicle, of variable form, round, elliptic, irregular, containing a transparent liquid holding in suspension certain whitish flakes, offers no other special peculiarity, is characterized by its orifice of invagination of crescentic form, often difficult to find; its cephalic portion is curved in a spiral, and appears like a nucleus laterally flattened in the manner of a lentil. The tenacula are slender, twenty-four to thirty-two in number, the larger attaining a length of $0^{\text{mm}},20$, the smaller $0^{\text{mm}},14$. The cephalic extremity is not colored, or more or less tinged with pigment, round or quadrilateral to a greater or less degree. One can vaguely distinguish the traces of a cephalic vesicle or cavity

* The hydatid vesicles become at times sterile in the second generation. They then are designated by the name of acephalocyst.

(*receptaculum capitis*) situated between the four suckers, whose form is slightly elliptic, and the rostellum, which is hemispherical.* The *C. turbinatus* differs from the *C. solium*, in the form of its tenacula, they being much more slender; in their greater length, and especially by their spiroid form of invagination. The *C. turbinatus* becomes the *tænia turbinata* (?) as yet unknown.

The *C. melanocephalus* is closely related to the *C. tenuicollis*. Its tenacula are strong and massive, 0^{mm},17 and 0^{mm},12 in length, in the person observed. The invagination is cylindrical, and may be double. Its cephalic extremity is quite broad, and measures one millimetre. The neck only has 0^{mm},2 in breadth. A very abundant deposit of pigment in the form of a crown surrounds the base of the tenacula and the rostellum which is hemispherical.

This species of cysticercus is probably allied to the *tænia melanocephala* that Van Beneden found in the intestine of the mandril (*simia maimon*), and classed in the group of *tænia* destitute of tenacula; an error, I believe, arising from an imperfect examination. "The *tænia melanocephala* has neither rostellum nor tenacula; (?) the suckers are proportionally small; the head slightly larger than the neck. The most remarkable characteristic of this *tænia* is the extraordinary breadth of the segments relatively to the narrowness of the neck and head. Patches of pigment are seen on the suckers and about them, giving the animal its specific name."†

The *C. solium* (*C. cellulosa*, *cysticercus ladrique*) offers the following characteristics according to Rudolphi.‡ "Cyst. capite tetragono, collo brevissimo antrorsum increcente, corpore cylindrico longiore vesicâ caudali ellipticâ transversâ." According to Davaine§ the orifice of invagination is small, and but slightly visible. The large tenacula 0^{mm},17 long; the small, 0^{mm},11. A certain number of longitudinal canals, easily seen, were found in the head; the calcareous capsules were very abundant. The caudal vesicle is variable; it is transversely elliptical only in the muscles. The tenacula are twenty-four to thirty-two in number; their maximum length is 0^{mm},18 for the large, and 0^{mm},13 for the small. The longitudinal canals are not always very apparent. The invagination is cylindrical, double, analogous to that of the *C. melanocephalus*. The *C. solium* becomes the *T. solium* in man.(?)||

The *C. tenuicollis* has much analogy with the *C. melanocephalus*. It is frequently found in ruminants. In the last, it occurs in a vesicular form, which attains a diameter of sixty millimetres and more. The tenacula are twenty-eight to forty-eight in number—the large measuring 0^{mm},18 to 0^{mm},21—the small, 0^{mm},114 to

* In the observations of some authors, the cysticerci described under the name of *C. cellulosa* are probably of the species *C. turbinatus*, and possibly of other species; though from the vague description it is impossible to specify them.

† Gervais et van Beneden, *Zoolog. médic.* t. ii., p. 243.

‡ Rudolphi, *Entozoor. Synopsis.* Berlin, 1819. P. 180.

§ Davaine, *Traité des Entozoaires et des maladies vermineuses.* Paris: 1860. P. 21.

|| It is probable that the *tænia* named *T. solium* in man, forms many species or distinct varieties which possibly are akin in part to the *tænia* produced by the *C. tenuicollis*, *C. serratus*, &c., modified by their residence in the intestinal canal of man, as most assuredly occurs with the *bothriocephalus*.

0^{mm},15 in length. The suckers have a diameter of 0^m,32 to 0^{mm},36. A short and thin neck immediately follows the head, generally colored black with pigment. The body of this cysticercus sometimes attains a length of ten centimetres. Its invagination in the caudal vesicle is cylindrical. In the proglottiferous state it forms the *tæniæ cysticercæ tenuicollis*.

The *C. serratus (pisiformis)* of the hare forms vesicles which measure twelve or fifteen millimetres in diameter. It is provided with forty to forty-eight tenacula; the large are 0^{mm},20, 0^{mm},25, and even more; the small are about two thirds as long, up to 0^{mm},145. The head is a globular tetragon and nearly one millimetre broad. The invagination is cylindrical. The *C. serratus* becomes the *tænia serrata*.

The Proglottides of the Tænia.—The name of proglottides is given to the rings or segments separated from the body of the cestoid helminth. These proglottides (*vers cucurbitins* of former writers) form as it were moving uteri, which spontaneously detach themselves from the caudal extremity of these helminths,* when the eggs, which they contain in enormous quantities, are matured. The eggs are expelled by the orifices of the genital canals, and mingle with the excrement of the animal they infest. The proglottides which are carried out by the excrement, or escape from the anus, are endowed with life and motion. They can make their way over a distance of many decimetres, crawling like the annelids on surfaces very oblique, even vertical, and perfectly smooth. They adhere by a mucus produced by the epidermis, which is glutinous and transparent, becoming white when immersed in water. During their progress they pour out on their trail a train of eggs. These facts I have proved with the proglottides of the *T. solium* and *T. serrata* after their spontaneous escape from the anus. After leaving the intestine they become torpid and soon perish.

The Eggs of the Tænia.—These are slightly oval in form; their diameter is about 0^{mm},03,† and they are covered with a hard, very thick shell, which is composed of prismatic hexahedral corpuscles, arranged side by side, and preserving them from external injury. They have considerable vitality. They continue living for many weeks in the midst of animal matter and putrefying proglottides, resisting even a humid temperature. They are apparently not immediately hatched after being deposited in the intestine, probably because they do not remain long enough, and because they are forced away with the mucus of the intestines or the residue of the digested matters. They continue their development in putrefying substances. Küchenmeister has observed that his experiments of infecting animals artificially with the eggs of *tænia* succeed best

* The *bothriocephalus* separates rarely in isolated proglottides; they break in fragments, which are only expelled at longer or shorter intervals from each other. The proglottides of the *tænia* generally escape from the anus singly.

† Those of the *tænia solium* have 0^{mm},028 to 0^{mm},033. The eggs of the *bothriocephalus* are twice as long; their form is ellipsoid; their shell envelope very thin, and provided with a small operculum, visible when treated with acid, or when the egg is broken between two plates of glass.

with those proglottides already commencing to putrefy, that is to say, twelve or fifteen days after their expulsion.

The accidental Sterility of the Tænia.—There are some *tæniæ* completely sterile, and therefore incapable of reproduction. Their eggs are abortive or rudimentary—often without any vestige of an embryo.

The sterile proglottides of the *T. serrata* or *T. solium* have generally a square form, are whitish and transparent.

The fertile rings contain a central canal with lateral prolongations, irregular, greyish, opaque, filled with an enormous quantity of eggs; they have an elongated quadrilateral form.

I have proved the complete or partial sterility of various species of *tænia*. It is very common with the *T. solium*. It sometimes happens that one or many sterile rings are intercalated in the midst of numerous fertile ones. At other times the contrary is seen, and one or many fertile segments are found, as it were, lost amidst the sterile rings.

The artificial introduction of the Embryo of the Tænia into the Economy.—When mature and fertile proglottides are given to animals in their food, their eggs hatch in the intestinal canal from the action of the gastric juice on the envelope, which being of a chitinous nature resolves itself readily into its prismatic elements. The young *tæniæ* (scolex) perforate with their tenacula* the thin epithelial wall of the intestine, penetrating the adjacent lymphatics or the capillary vessels, whence naturally they are carried on by the circulating current to the ramifications of the intestinal veins, which in turn convey them by the vena porta to the liver. They may stop in the capillaries of this organ, or if their size is not too large, they traverse them, pass into the hepatic veins, cross the right side of the heart, and stop finally in the capillary vessels of the lung. Thus it is that the disease of the lung, called in the calves, &c., calcareous phthisis (*pommilière*), is occasioned by the presence of the embryo of the *tænia* (echinococci), there confined. When they can pass through the capillaries of the lung, they enter the pulmonary veins, the left side of the heart, and thence may be borne by the arterial system to any organ of the economy. They are especially arrested in those whose capillary vessels are of the smallest calibre.

Young *tæniæ* may perforate the walls of the capillaries, and journey for some time in the body of the tissues. They may traverse the serous envelope of an organ, when they have been carried to its surface, as in the liver, whence they drop into the abdominal cavity and attach themselves to any other part.†

* Though I have made assiduous search, still I have never found the hexacanth (?) embryo. I have examined the cysticerci of the hare (*C. serratus*), having less than a centimetre of length, and the echinococci in myriads in man and domestic animals implanted on the producing membrane, at all degrees of development, from 0^{mm}.02 to 0^{mm}.03; and have found them usually with twelve or twenty-four tenacula, once only with eight.

† The presence of cysticerci in the abdominal cavity has thus been explained, but a certain number of embryos undoubtedly enter the subepithelial lymphatic network, remaining in the lymphatic vessels of the

Arrested in the tissues of the body, they there become encysted, while their heads retracting invaginate in the posterior part of the body. This is gradually infiltrated with liquid, is distended, and thus forms the vesicle or caudal bladder. The traces of the depression or terminal cicatrice by which, with the pedicle,* the embryo was fixed to the membranes of the egg, disappear as the distended vesicle enlarges, and the embryo of the tænia in this state forms a sort of larva, now called a cysticercus or deutoscœlex, known by the former writers as a hydatid, a hydatid vesicle, lumbricus hydropicus, &c.

These experiments have frequently been repeated, and the results obtained by Kuchenmeister, Von Siebold, Van Beneden, Leuckart, Haubner, Röhl, Eschricht, cannot be questioned. It is very difficult to find embryos in the blood of the intestinal veins, owing to their great tenuity; at times, when rabbits are fed with a large quantity of mature proglottides, they die after one or two days, apparently from irritation and inflammation of the intestinal canal and the liver, as proved at the autopsy.

Leuckart has never found an embryo in the hepatic vessels, though he has met with four in the vena portæ. Küchenmeister and Haubner thought the embryo entered the liver by the ductus choledochus, like the liver fluke (distoma, *Leberwurm*), the lumbrici, &c.; but as yet no one has found a free cysticercus in the hepatic ducts or in the gall-bladder.† If the embryo do penetrate the ductus choledochus, it is only exceptionally.‡

The accidental introduction of Embryo of the Tæniæ into the Economy.—If the proglottides or tænia eggs introduced purposely into the intestine hatch, those which are introduced by chance with the food and drink ought by necessity to act in the same way.

The proglottides or eggs of tænia which infest the intestine of man or the domestic animals, being mixed up with the residue of the digested food, remain in the dirt in which certain animals burrow, or are carried by the rain or by other means into the brooks, the pools, the ponds or cisterns. Thus they become a source of infection for men who use these waters, for the animals who drink there, or live in them, such as aquatic birds and reptiles, as well as fish.

The humidity and rain preventing the drying, as well as transporting and preserving these eggs, are eminently fitted for their propagation and infection. Thus in damp and rainy years or seasons the parasites are produced in immense quantities. The infection then takes easily its epidemic character, and rages

mesenteric or of the epiploon. I think this is very frequent in the hare, the cat, &c. The cysticerci are especially found in the lymphatics springing from the intestines.

* This pedicle or umbilical cord is as well seen in the cestoid helminths as in the nematoids. It is readily found in echinococci still attached to the egg-bearing wall. In the bothriocephali and tæniæ, it is only seen in aborted eggs, whose embryo does not completely fill them, nor mask it by the opacity of its body.

† The echinococci that Schröder, Van der Kolk, Bouchut and myself have found surrounded with bile, were not apparently developed in the hepatic vessels; these vessels without doubt were ruptured after being inflamed or distended.

‡ The manner in which the *C. cænurus* journeyed, according to Kuchenmeister, from the pharynx towards the brain, traversing one of the orifices of the base of the cranium, by an ethmoidal foramen, or by some vessel, is an assertion very problematical if not extraordinary.

among the bovine race, swine, deer, &c., which are especially exposed in the pastures.* The human economy is probably infected with the cysticeri from the use of turbid water contaminated with the eggs of *tænia*, or from the use of food prepared with the blood of animals containing the embryo of *tænia*, and which have not been sufficiently cooked; raw meat or imperfectly cooked food, ham or lard raw, or simply smoked and salted, rare beefsteaks, the juice of raw meat, &c., may for the same reason infect us with these parasites.†

The existence of cestoid worms in different classes of animals, such as the reptiles, mollusks, articulates, &c., has been as yet too slightly studied. Future researches will probably elucidate points as yet obscure regarding the origin and propagation of some of the species.‡

Embryos of Cestoid Worms destitute of Tenacula.—Cysticeri of bothriocephali and of *tæniæ* without tenacula have not yet been found, as their embryos, being destitute of tenacula, cannot perforate the intestine and then advance into subperitoneal cellular tissue, nor enter the intestinal veins, &c. The embryos of the cestoid bothriocephali and gymnotians being unable to traverse the intestine, fasten to it simply by their suckers, and change into proglottiferous tape worms.

Numerous species of *tænia* and bothriocephalus are very common in fish and sea birds, wild and domestic ducks, geese, swans, &c. These cause infection by the eggs of their parasites voided with excrement, and by their own bodies when eaten. Thus men and domestic animals living near the borders of lakes, rivers and ponds, who use the contaminated water, may become infected.

In certain conditions of the soil, climate and economy, the contagion takes on an epidemic character. By the report of R. P. Laverlaclère, the waters of Lake Abbitibbi are slimy, disagreeable in taste, and give the *T. solium* to all who drink them for a certain time; not one of the Indians living near the lake was free from this parasite. They are extremely meagre, and have an enormous appetite.§ It is very probable that the bothriocephali so common with the Swiss (one fourth of the inhabitants of Geneva, one seventh of the population of the land, being thus affected, according to Odier), and beyond the Vistula, in Poland, in Russia,

* The disease called "*tournis*" (Drehkrankheit) in sheep and oxen, very common in Bohemia, according to Von Siebold, is caused by the brain being infested with the cysticeri of the *T. cænurans* (*cænures*), probably derived from the eggs and proglottides of the *T. cænura* which occupies the intestines of the shepherd dogs. These dogs contaminate the pastures with their excrement. It is sufficient to destroy the parasites, says Van Siebold, to check the disease.

† It is probable that in man certain cysticeri regarded as *C. cellulose*, and certain *tæniæ* considered as *T. solium*, belong to the *C. serratus*, *C. tenuicollis*, &c., modified; otherwise the only fresh meat capable of conveying the *tænia* would be almost exclusively that of the pig, which is contrary to fact.

‡ Stein (Zeitschrift für Wiss. Zool., b. iv., p. 205) found in the *ténébrion* of flour encysted forms very analogous to the cysticeri of *tæniæ*. Other cysticeri have been noticed by Meisner (*C. arionis*), by Van Siebold in the *Gummarus pulex*, by Wdekem in the *Tubifex rivulorum* (d'Institute, Ire Section, 1856, p. 82). Herbivorous animals, &c., might be infested from a similar source. The *Gryporhynchus pusillus* (Nordmann), plates of Wagener (Beitrage zur Entwicklungsgeschichte der Eingeweidewürmer, Harlem, 1857), and found by this helminthologist in the *cyprinus tincta*, does not sensibly differ from the *Echinococcus* except by its size being nearly double.

§ Annales de la propagation de la foi, 1852, p. 75.

as well as in Holland, and certain parts of Sweden near the Baltic, at the mouths of rivers, come from the waters of the lakes or streams which the people use. The mountaineers and the inhabitants of the interior of the country are free from these parasites.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

AUG. 12th. *Fatty Degeneration of the Heart*.—Dr. MINOT reported the following case.

A gentleman, 58 years old, perfectly temperate, and previously very healthy, with the exception of an attack of pleurisy, five years ago, from which he recovered perfectly, had noticed that he was short breathed for a year past. The dyspnœa had considerably increased of late, rendering any great exertion impossible. He was also occasionally troubled with attacks resembling impending suffocation at night, obliging him to rise up and open the window. The functions in all other respects seemed to be well performed, and no disease could be detected by physical exploration. There was no œdema, and the urine (examined once, only) contained no albumen. On the 3d of August, a very hot day, he was suddenly attacked, while walking after dinner, with extreme dyspnœa and intense pain in the shoulders, arms and precordia. External stimulants were applied, and in the course of an hour the dyspnœa was somewhat relieved, but the pain continued for several hours, until it was controlled by large doses of opium. The next day he was removed from his hotel to a private room at the Hospital. On the 4th, there were some signs of pulmonary congestion, such as the expectoration of a small amount of tough, bloody mucus, and dulness, with crepitant râle, in the lower part of right back. He had nausea and vomiting of bile that night and the next morning, apparently in consequence of taking some *veratrum viride*, and died, rather suddenly, at noon. There was some lividity of the skin, and weakness of the pulse, from the beginning of the attack. The mind was perfectly clear.

Dr. ELLIS reported the autopsy. The lungs were found to be œdematous, and the right one was uniformly and firmly adherent to the walls of the chest. The heart was large, weighing 1 pound 8 ounces. All the cavities were dilated, and the walls hypertrophied, the right auricle being, perhaps, an exception. The substance of the heart was mostly of a light-red color, but marbled by irregular yellowish-white portions. The wall of the posterior part of the left ventricle was of an uniform healthy red color. The consistence did not appear to be diminished.

On microscopic examination, the striæ of the yellowish-white portion were found to be very indistinct, and the fibres were filled with granular matter, and, in a few instances, with minute globules. Although ether did not appear to act upon the granules and globules, the experiment was not considered decisive against their fatty nature.

The kidneys were of small size. Their cortical substance was decidedly granular. The Malpighian bodies were very distinct, owing to

their congestion. The tubuli were seen by the microscope to be filled with granular matter.

The urine taken from the bladder was of a milky color, owing to a large amount of urates, and contained some albumen.

The body was much stiffened, from having been kept in ice.

Dr. Minot was surprised at the result of the microscopical examination, since to the naked eye the heart appeared to contain a large amount of fat. Moreover, the abdominal parietes, and other parts of the body, were loaded with fat.

Dr. BACON did not consider the absence of globules to be a proof that there was no fat in the tissue. It might exist in a granular state, and this would be more likely if the body had been congealed. Moreover, when in the granular state it would be less easily acted on by ether.

AUG. 12th. *Inhalation of Ether in Puerperal Convulsions.*—Dr. STORER reported the following case as an illustration of the good effect of the inhalation of ether in puerperal convulsions. He had been requested to see, in consultation, a woman in convulsions. She was at the eighth month of pregnancy, with a full pulse, and had been bled, after which she rallied slightly. She then had three more convulsions in the course of an hour. The os uteri was slightly dilated. Ether had already been given, and Dr. S. advised that it should be continued upon the slightest appearance of convulsions. He afterwards learned from the physician in attendance that the convulsions were perfectly controlled by the ether; in a few hours labor came on, the woman was delivered of a still child, and recovered. The child was probably dead before the convulsions came on.

Dr. C. E. WARE asked what proportion of cases of convulsions had been successfully treated by this method, in Dr. Storer's experience.

Dr. STORER said he did not think he had ever given ether under these circumstances without beneficial effects. Within the past year he had seen six or eight cases, in all of which he thought the remedy did good. He did not mean to say it was infallible, but that it had been of great service in his experience.

Dr. WARE had tried ether but once in puerperal convulsions; in that case it had not the slightest effect in arresting the convulsions, which went on till delivery, and the woman died.

Dr. Storer said that one of the most remarkable cases of the favorable effect of ether in puerperal convulsions he had seen, was the one he reported to the Society, April 22d, in which the patient had had a convulsion every hour for ten or twelve hours. Ether was then given, after which she had one slight paroxysm, and no more. The urine in that case was excessively albuminous.

Dr. J. BIGELOW remarked that puerperal convulsions might be divided into different classes, particularly the hysterical and epileptiform, and it was fair to conclude that the different forms required different treatment. When convulsions tend to, or terminate in coma, it is in vain to expect good from ether. In the hysterical variety, ether might prove a palliative, though the patients would generally recover after labor without any treatment. He thought the diagnosis was more important than the treatment. Within the last year he had seen two cases of puerperal convulsions, in consultation; in one, the spasms were violent, but there was no other unfavorable symptom. It was decided to rupture the membranes, and in a short time dilatation came

on, the woman was delivered, and both mother and child did well. In the other case, the woman was absolutely comatose, and died. In the first case, ether would have acted as a palliative; in the other, it would have been of no avail.

Dr. STORER had seen very decided effects from ether in this affection, in cases where the urine contained large quantities of albumen, and in which there was no evidence of hysteria.

Dr. CABOT thought that the danger from convulsions was in some degree dependent upon the rapidity with which they occurred; and just as the poisonous effects of strychnia are controlled in a measure by keeping the patient perfectly still, so we might expect ether to be of service in puerperal convulsions, by arresting the paroxysms, or diminishing their frequency.

Dr. WHITE asked if it were known whether albumen existed in the urine previous to the convulsions, in these cases? It was stated by good authorities that the albuminuria was caused by mechanical pressure on the kidneys during the paroxysm.

Dr. STORER was not aware that the urine had been tested before the paroxysm came on in any case which he had seen, but where there is great oedema, as frequently happens, for some time before the convulsions appear, we may reasonably conclude that albumen had existed in the urine previously to the convulsions.

Dr. TYLER said he did not recollect a single case in which he had given ether by inhalation for the convulsions of epilepsy, or *paralysie générale*, or hysteria, where he did not feel sure that it acted as a perfect palliative.

Dr. AYER asked if it were safe to give ether in cases of organic disease of the brain?

Dr. TYLER said he had often given it in such cases, and had never observed any evil effect from it.

Dr. JACKSON observed that in some cases of puerperal convulsions he had found an effusion of blood; and in others, nothing is found which will account for death, in which last we may suppose that the patient dies from nervous irritation.

Dr. H. J. BIGELOW thought that ether acted favorably in puerperal convulsions by quieting the exhausting action of the muscles.

Dr. E. PALMER said he had relied on ether alone in three cases of puerperal convulsions. They all recovered, and the coma seemed more quickly relieved, and the convalescence more rapid than usual; but the ether did not seem to have any marked effect in controlling the convulsions.

Dr. DALTON said his experience was decidedly in favor of the efficacy of the inhalation of ether in puerperal convulsions.

AUG. 12th. *Desquamation of Cuticle in a Living, New-born Child.*—Dr. READ said he had attended a woman who was prematurely confined in consequence of having fallen down stairs. The hands and feet of the child were denuded of cuticle, which hung from them in shreds. The child was apparently at the eighth month, and lived twenty-four hours. There was no other sign of disease. The case showed that desquamation of the cuticle is not always a sign that the fœtus has been dead a considerable length of time.

Dr. STORER said the case was one of much interest, and confirmed the view he had always maintained and taught, that desquamation of the cuticle is not a sure sign that the child has been dead a long time.

AUG. 12th. *Phimosis in New-born Children*.—Dr. WHITE read the following extract, which he had translated from a new Vienna journal (the *Jahrbücher*), concerning the phimosis of new-born children, a subject to which Dr. JACKSON had several times called the attention of the Society. (See this JOURNAL, Vol. LXII., page 325.)

“Dr. Bokai, Superintending Chief Physician of the Children’s Hospital in Pesth, has written a treatise on the cellular adhesion of the prepuce to the glans in children, in a physiological and pathological point of view. On the strength of numerous observations, Dr. B. distinguishes three degrees of adhesion:—

“First, when the union between the foreskin and glans is limited to its corona; this degree is observed both in large and very short foreskins, also among the circumcised, and occurs in children after the first year.

“The second degree represents the junction of the inner half of the glans with the foreskin. The latter is generally capacious and long. This form is observed in the second half of the first year of life; also in the first few months, and up to the third year.

“The third degree is the congenital phimosis of the new-born, which is often accompanied by a union of the orificium externum urethræ.

“As a symptom common to all these three degrees, we have pain, swelling, redness, and bleeding of the glans, even, when the foreskin over the place of juncture is drawn back with violence, and when the tissue forming such adhesion, which generally consists of a layer of cylindrical and oblong cells, arranged upon each other in the most various order, offers a somewhat greater resistance. This adhesion Dr. B. has found 86 times in 100 children between the ages of 5 hours and 13 years; but in general it is much more frequent and of a higher degree in the younger children. It deserves notice in circumcision, and as a cause of onanism (since the collection of the smegma produces irritation), and of impeded urination in the new-born.”

AUG. 12th. *Forcible Separation of the Connection between the two Upper Bones of the Sternum, and of the same between the Fifth and Sixth Cervical Vertebrae*.—Case reported, and specimens shown by Dr. JACKSON. The patient, a laboring Irishman, aged 25 years, was attempting to get upon the front platform of a horse-railroad car, when he was struck upon the breast, and thrown down upon his back. He entered the Hospital three hours after the accident, under the care of Dr. Clark, and lived a little more than three days. There was loss of the power of motion and of sensation below the injured vertebrae; and, soon after entrance, priapism. Mind not affected. The two upper sternal bones were hinged together by the fibrous expansion on their posterior surfaces; but otherwise the separation was complete. The two vertebrae were entirely and pretty widely separated, rather than dislocated. Upon the right side of the sixth vertebra, as much of the bone as formed the anterior portion of the canal for the vertebral artery, was broken, but otherwise there was no trace of fracture. Theca, at the seat of injury, entire; spinal marrow, to the extent of an inch, red, and much softened.

Dr. J. showed, from the Society’s Cabinet, a sternum, in which the same accident had happened as in the present case. In regard to the vertebrae, he remarked that two or three other cases, at least, of the kind had occurred here, though they are considered generally as so very rare.

AUG. 26th.—*Empyema; Thoracentesis; Death from Hæmorrhage*.—Dr. MINOT reported the case.

The patient was a young man 23 years old, a tin and iron worker, who attributed his disease to exposure to cold, while at work on the roof of a house. He gave up work May 8th, and was treated for

pneumonia and pleurisy. He had had, however, cough and expectoration ever since January. He entered the Hospital, July 4th, much prostrated, unable to speak without difficulty, with a cough and expectoration of thick, greenish, purulent mucus. The respirations were from 36 to 40, and the pulse about 116 in the minute. He could not lie down, and was obliged to recline towards the right side, to avoid coughing. The left chest was flat on percussion throughout, with the exception of the upper fourth: and the respiratory murmur was also absent to the same extent. Nothing especial was noticed on examination of the right side, except that the impulse of the heart was heard below and to the outside of the right nipple. Between the ninth and tenth ribs, and about three inches behind a line dropped from the nipple of the left side, was a soft, fluctuating tender swelling, and a little above and behind it was another similar one, but smaller.

The next day (July 5th), the chest was punctured at the lower swelling, and upwards of four pints of pure pus were discharged, to the immediate relief of the patient, who was at once able to lie down without inconvenience. The heart returned to its normal position, and the respiration could be heard throughout most of the left chest. The circumference of the chest was diminished about an inch and a half. The canula slipped out of the wound in a few hours, and the puncture closed. In a few days the chest filled up again, and the heart was felt beating at the apex of the sternum. Metallic tinkling, and a loud succussion-sound, could be heard all over the left chest.

On the 22d, the chest was again punctured, at the same place, and the canula secured in the wound. It was afterwards replaced by an elastic catheter, which gave less inconvenience to the patient. A solution of iodine was thrown into the chest daily. The discharge was free, and never offensive. The general condition improved, and the patient sat up, partially dressed, most of the day. The cough and expectoration diminished. The rib, at the place of puncture, however, was found to be carious. The patient was allowed good diet, with stimulants.

On the evening of Aug. 17th (twenty-six days after the last puncture), he was found to be faint, and, on examination, blood was seen issuing from the opening. The wound was plugged with lint, but though the quantity of blood lost was not large, he continued to sink, and died in two hours and a half.

At the autopsy two pints of coagulated blood were found in the left pleural cavity, whose walls were everywhere covered with a thick, rough, firm false membrane. The costal pleura and parietes of the thorax, on the same side, were in several places deeply eroded, as if the pus had pointed there, before the puncture was made. The ribs were exposed and denuded at several points. The vessel from which the blood escaped could not be found. The left lung was much compressed against the spine, but still contained air. At its apex was a small cavity, and lower down, another, still smaller, in the neighborhood of which was a mass of yellowish-white tubercle. In various parts of the lung were gray granulations, isolated, or in groups. Many of the same granulations were found in the upper lobe of the right lung, and, at one point, softening. The right pleura was healthy. The heart was quite small, and occupied the median line.

The hæmorrhage in this case probably came from one of the intercostal arteries, which must have been opened in the process of ne-

crisis of one of the ribs. From the small quantity that escaped from the chest, it seems likely that the ulcerated vessel was not situated near the puncture. The condition of the lungs and ribs showed that the operation could not have saved the patient, even had not hæmorrhage occurred; but the great relief it afforded would fully justify its being performed in another, similar case, as a means of both relieving suffering and of prolonging life.

AUG. 26th.—*Malignant Disease of the Large Intestines; Death from Peritonitis, the result of Perforation.*—Dr. C. D. HOMANS showed the specimen, and read a history of the case, furnished to him by Dr. John Homans, the attending physician.

Mrs. ———, aged 72½ years, a large, fleshy woman, had enjoyed good health through life, with the exception of about two years, some fifteen or twenty years since, when she had severe attacks of pain during the passage of gall-stones. In July, 1860, she was attacked with diarrhœa, which continued for several weeks, and was followed by acute rheumatism, principally in the joints of the lower extremities, especially the knees. This was attended with pain in the back and loins. The rheumatic affection continued through August, when it gradually subsided, except that the pain in the back rather increased, and persisted during the autumn and winter. Possessed of fortitude and patient endurance, she did not seek medical aid till March, 1861.

On visiting her at that time, she was found suffering from severe pain in the back and left iliac region. The pain, though constant, was not always equally severe, but recurred in paroxysms, and was aggravated by horizontal posture, to such an extent that she could not remain in bed, and gave up the attempt for the rest of her life. On examination of the abdomen, a tumor was felt in the left side, of the size of a hen's egg, about equally distant from the spine of the ilium and the linea alba. It was irregular in shape, and seemed to be in two portions; it was very hard to the touch, even through the very thick abdominal parietes.

The pulse averaged from 65 to 70; the heat of the surface of the body was natural; face rather flushed during severe paroxysms of pain; the tongue slightly coated; the appetite indifferent, and the dejections regular and natural. During the months of April, May and June her sufferings gradually increased, and her appetite nearly disappeared, although the other constitutional symptoms remained about the same. About the first of July, defæcation became painful, though not always so, and dysuria occurred at times, but not frequently. During the summer she passed daily from two to four hours in driving, which always gave temporary relief; this habit she followed till within a few days of her decease.

On the 18th of August, she was suddenly seized with excruciating pain in the abdomen, which was scarcely moderated by large doses of laudanum and the inhalation of sulphuric ether. Vomiting ensued, and the bowels ceased their evacuations. Tympanitic swelling, with excessive tenderness, followed. After the lapse of twenty-four hours, the vomiting ceased, and the constipation yielded to aperients and injections. The pulse, which had risen to about 130 immediately after the attack, and had become exceedingly feeble, fell to 110, but its strength was not increased. The intense pain and tenderness dimin-

ished, but returned again the next day, and continued very severe till within an hour of her death, which occurred on the 22d inst.

At the autopsy, there was found general peritonitis, the organs of the abdomen being glued to each other and to the walls of the cavity by recent soft adhesions. The omentum, especially, was so adherent to the anterior abdominal parietes as to render some force necessary to separate it. When this separation was completed, there was a gush of more than a pint of brownish-yellow fluid, containing flakes of lymph. In the left iliac region was a tumor, involving the large intestine and all the parts in the neighborhood. This tumor and all the pelvic organs were removed together, and constitute the specimen exhibited. Inside the intestine, at about the junction of the descending colon and the sigmoid flexure, is a sloughy, ulcerated surface, involving the whole circumference, excessively thickened, and very firm to the touch, as are also the neighboring tissues. On incision, the cut surface presented a grayish-white color, interspersed with masses of yellow. A tumor, similar in appearance, apparently consisting of enlarged glands, was found along the left side of the lumbar vertebræ. A probe passed into the ulceration in the intestine, showed itself behind the uterus in the peritoneal cavity. There was no solid fecal matter either in the intestine or abdomen. The uterus was soft, and contained a dirty, yellow fluid.

The kidneys were fatty and somewhat granular.

The other organs were healthy.

The urine was examined a few days before her death, but not a trace of albumen was found.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 12, 1861.

WE have read with some interest, in a late number of the *British American Journal*, an account of the formation of an association for the promotion of botanical science, under the title of the Botanical Society of Canada, together with the first report of its proceedings; and the idea naturally suggests itself why a similar institution does not exist among ourselves. It seems the more strange in a community where many of the physical sciences have been cultivated with considerable assiduity and success, that no organization for the systematic study of one of the most attractive of them should have hitherto existed. To the naturalist, the study of the vegetable world is suggestive and full of interest; while to the physician a limited knowledge of botany is essential to the completeness of his medical education. So little, however, has this subject been cultivated by our students generally, that we suspect few can be found who could point out the natural orders to which the various medical plants belong. It must be allowed, as we have just intimated, that a certain, although it may be a limited, acquaintance with botany is indispensable to a thorough medical education, and many of us are forced to admit that the neglect of its study, due in a great degree to an ignorance of the importance

which really attaches to it, has been felt as a positive deficiency, and one not readily made up. With a more intimate acquaintance with the vegetable materia medica would come a better knowledge and appreciation of their medical virtues, the want of which the immortal Sydenham deplored in his day; and which has indirectly led to that growing lack of confidence in the efficacy of drugs so characteristic of our own time.

To the country practitioner, the practical advantage of such knowledge is especially important, in enabling him to recognize at once the character of the various medical plants which everywhere abound, "*pro foribus et in patrio cujuslibet solo*," and thus leading to the discovery, it may be, of new and valuable medicinal agents.

We see that in one, at least, of the Canadian Schools, some knowledge of botany is now required of the candidate for a medical degree; and why, we would ask, should it not elsewhere form a part of the necessary studies? An acquaintance with the subject is one of the requisites of the Army and Navy Board, and why should not those who aspire to the honors of a doctorate be equally well prepared for the practical duties of the profession?

SULPHATE OF MAGNESIA IN DYSENTERY.—The treatment of dysentery in its earlier stage by neutral salts, has certainly very great success. But why should one select such a disgusting salt, as sulphate of magnesia, when there are others equally good and very palatable? Why force a child to swallow an offensive remedy, when a pleasant one can be had? A scruple of bitartrate of potash to an ounce of syrup of orange peel or tolu has the advantage of being a medicine that "children cry for," and not on account of. It has the advantage also of being a salt of an organic acid.

C. E. B.

QUERIES.—Does any druggist suppose, that members of the Massachusetts Medical Society will be induced to patronize his shop because the medicines are got up "by a patented process"?

Because a "menstruum" is "freed from grain oils by a patented process," is it supposed to be any better than if the whole Pharmaceutical Society had it in their possession?

Is there any reason to suppose that our responsible druggists do not all use equally pure menstrea?

Is not faithful attention to the drug business in particular, as good evidence of the perfection of a drug store, as faithful attention to the fancy goods trade and the soda fountain? ???

BRIGADE SURGEONS.—The following Brigade Surgeons have been assigned to duty, to report as ordered below:—S. W. Gross, to Brig. Gen. Robert Anderson. J. D. Johnson, to Maj. Gen. Rosecrans. W. Glendennin, to Maj. Gen. Rosecrans. C. G. Shumard, to Maj. Gen. Rosecrans. J. E. Quidor, to Maj. Gen. D. Hunter. A. B. Campbell, to Maj. Gen. D. Hunter. J. V. Z. Blaney, to Maj. Gen. D. Hunter. O. Martin, to Maj. Gen. D. Hunter. N. R. Derby, to Maj. Gen. D. Hunter. C. McMillan, to Maj. Gen. J. C. Fremont. J. H. Brinton, to Maj. Gen. J. C. Fremont. P. W. Ellsworth, to Maj. Gen. J. C. Fremont. Luther V. Bell, to Maj. Gen. J. C. Fremont. A. H. Hoff, to Maj. Gen. J. C. Fremont.

THE AMERICAN DENTAL CONVENTION.—This Convention met the present year at New Haven, Ct., on the 6th of August, and the session continued for four days. The attendance was large, considering the distracted state of the country, and the papers read by different members were well prepared, and possessed much practical interest. The discussions on a great variety of matters connected with the practice of dentistry were also animated and instructive, and continued without abatement to the hour of adjournment. Prof. Worthington Hooker, of the New Haven Medical School, on invitation, addressed the Convention. In the course of his remarks he alluded to the use of ether in dentistry, and said he did not consider it necessary to produce total insensibility in dental operations, but he believed there was a period of partial anæsthesia in which sensation is lost without a loss of consciousness. The officers of the Convention for the present year are:—Dr. J. D. White, Philadelphia, *President*; Dr. F. Searle, Springfield, Ms., *Recording Secretary*; Dr. B. T. Whitney, Buffalo, N. Y., *Corresponding Secretary*; Dr. John T. Metcalf, New Haven, Ct., *Treasurer*.

EFFECTS OF SANTONINE ON VISION.—The effects of santonine in causing green vision have been known for some time, and an oculist of Nantes, M. Guépin, has experimented largely with this drug, hoping to obtain some beneficial therapeutical results from this peculiar property in certain affections of the retina. A case presented by M. Cavasse to the Medical Society of the Seine, last week, further illustrates some of the properties of this drug. A very nervous woman, believing that she suffered from worms, purchased from a druggist a drachm of worm-seed, semen-contra, in order to rid her bowels of their turbulent inmates. Shortly afterwards colic came on, and chancing to look in the glass, she distinctly saw herself pea-green. The fright sufficed to throw her into violent convulsions, and her friends, who believed poison to have been swallowed, rushed in a body to accuse the unlucky chemist of manslaughter. Luckily M. Cavasse, well aware of the properties of santonine, and of its presence in semen-contra, was called in, and able to reassure the terrified family as to the innocuity of the medicine to which so much mischief had been attributed. In due time the toxical effects subsided, the green vision disappeared, and the poor patient, comforted by a second look at the mirror, and by the reappearance of her accustomed tint of complexion, recovered from her panic, morally persuaded, however, that she had narrowly escaped death by poisoning. Similar results have been observed in the tropics as consequent upon bites by serpents, really innocuous, but supposed by the sufferers to be venomous.—*London Lancet*.

CAUSES OF DEATH IN LONDON.—The report of the Registrar-General contains an instructive paper, by Dr. W. Farr, on the causes of death in England in 1859. The most noticeable feature is the rapid spread of diphtheria, the deaths from which epidemic in 1855, were 385; in 1856, 603; in 1857, 1,583; in 1858, 6,606; in 1859, 10,184. Dr. Farr considers that diphtheria was well known in Italy and Spain in the seventeenth century, and that diphtherine, its *materies morbi*, is some modification of scarlatinine. One quarter of all the deaths of the year were caused by zymotic diseases. Smallpox was fatal to 3,848 persons, chiefly, of course, unvaccinated children. Excessive drinking is returned as the direct cause of death in 890 instances, 545 of which were from delirium tremens, and the remainder are simply ascribed to "intemperance." Gout is stationary. The deaths from tuberculous diseases have decreased in number since 1853; while those from bronchitis have increased largely. Diseases of the three vital organs, the heart, lungs and brain, amount nearly to one third of the deaths of the year. Seven persons died from fright, 8 (7 women) from grief, 5 from rage, and 26 women and 21 men from melancholy. Organic lesions, or local irritations productive of convulsions, were the cause of death to more than 25,000,

chiefly infants. 27,104 persons only died a strictly natural death, that is to say, from simple old age. Violent deaths amounted to the startling number of 14,649—or at the rate of 75 in 100,000 annually. Of the 13,056 of these deaths which are ascribed to accident or negligence, 279 were caused by poison. 1,248 persons committed suicide, and 338 met their death by murder or manslaughter.—*London Spectator*.

EFFECTS OF CLIMATE ON NORTHERN AND SOUTHERN TROOPS.—Comparing the Northern soldier with the Southern, we believe the former will withstand the effects of the climate for a short campaign of a year or more better than the latter; and though the popular belief is divergent to this view, the statistics of our war with Mexico fully sustain it, and the published opinion of no less an authority than Dr. Nott, of Mobile, in the *Southern Jour. of Med. and Pharmacy*, for January, 1847, confirms it.

The statistics of the Mexican war are so remarkable, that we present them as we find them, given in a recent number of the *Evening Post* :—

On April 8th, 1848, the Secretary of War made a report to the United States Senate of the losses of the volunteer forces employed in Mexico. From this, it appears that seven Northern States—Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois—furnished, in the course of that war, 22,573 men. Of this force, the total loss from disease was 2,931 men; less than one eighth of the whole. Nine slave States—Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Tennessee and Kentucky—furnished 22,899 men. The loss from this force by disease, and death caused by disease, was 4,315, or more than one fifth; a very considerable difference in favor of Northern troops.—*American Medical Monthly*.

THE pressure of opinion of the English profession against consultation with homœopathists has been too great for Mr. Fergusson, who has taken the stool of repentance. In a note to the *London Journals*, he says, “I beg to state for the future I shall feel it incumbent on me to decline any meeting or so-called consultations with homœopathic practitioners.” All the leading English physicians and surgeons who have been suspected of these delinquencies, have placed themselves right on the record. Although it is manly and noble in a man occupying a high official position to acknowledge his errors, and promise reform, still it is not a little humiliating to learn that a prominent member of an honorable profession can willingly depart so far from its established rules of ethics, as to incur the just censure of his brethren.—*American Med. Times*.

HEALTH OF TROOPS IN THE WEST.—Dr. C. H. Rawson, Surgeon to the Fifth Iowa Regiment, writes from Jefferson City, Missouri, under date of August 25th :—“We have not had a large list of sick until the last few days. Up to two days ago, all the diseases that prevailed were diarrhœa, little dysentery, intermittent fever, and pneumonia. But in the last two days, the type of fever has changed to the remitting character, and will probably run into continued.—*Ibid*.”

An important surgical operation is mentioned in the *Plymouth Memorial*, as having been performed in that town by Dr. Gordon, on the fractured skull of a child—several pieces being removed from the substance of the brain. We should be pleased to publish a full report of the case from Dr. G. when the result of the operation is known.

LONDON HOSPITAL.—Mr. Luke, the Senior Surgeon, has resigned the office he has held for many years with much distinction. Mr. Critchett will, in the ordinary course, succeed to the full Surgeoncy. Mr. Couper, Demonstrator of Anatomy to the College Hospital, is a candidate for the vacant Assistant-Surgeoncy.—*London Lancet*.

SALE OF MEDICAL PRACTICES IN PARIS.—Sales of this kind, so common in this country, have always been declared illegal by the higher courts of France.

Only very lately a change in this respect has taken place, and one of the upper courts has recognized the validity of such a sale.—*Ibid.*

At a meeting of the Royal Medical and Chirurgical Society of London, Mr. Hulme exhibited a patient who had an absence of the iris from both eyes, and he was examined by Mr. Dixon and others present with the ophthalmoscope. The ciliary processes could be distinguished, and a portion of the crystalline lens was opaque. Such a deficiency is believed to be very rare, but Mr. Hulme informed me that there had been as many as half a dozen cases of the kind at the Royal Ophthalmic Hospital, Moorfields, within a twelvemonth; and he said these cases proved that the iris was not actually necessary for the regulation of sight, for in all vision was pretty good.—*London Correspondence of British Am. Med. Jour.*

A NEW CAUSTIC FOR TOOTHACHE.—The following treatment is recommended by Dr. Calvy, of Toulon, for the neuralgia proceeding from carious teeth. The carious cavity is first to be cleaned out, and then a piece of cotton, steeped in a solution of six grains of acetate of morphia in an ounce of nitric acid, is to be applied to its interior. As soon as the caustic penetrates into the carious tooth, the pain ceases, and the patient is cured. After the application of the caustic, the cavity should be filled with cotton steeped in the sedative solution of opium, and afterwards permanently plugged.—*Br. Med. Jour., from Gaz. des Hopitaux.*

THE income of St. Bartholomew's Hospital, London, in 1860, was £35,589 16s. 4d. Of this sum, £27,537 12s. 3d. was from rentals of lands; £4,625 6s. 6d. dividends on stocks; £2,253 2s. 9d. tithes, timber, &c.; £90 from the collegiate establishment; and only £184 from benefactions.

VIVISECTIONS IN PARIS.—The practice of operating on living animals, which has been carried on for years at the veterinary school of Alfore, near Paris, has lately been prohibited by order of the authorities.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, September 7th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	46	44	90
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	50.3	51.2	101.5
Average corrected to increased population, . . . . .	..	..	113.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
8	18	1	0	2	0	2	3	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.096	Highest point of Thermometer,	76.0
Highest point of Barometer,	30.270	Lowest point of Thermometer,	49.0
Lowest point of Barometer,	29.930	General direction of Wind,	W.S.W.
Mean Temperature,	64.8	Am't of Rain (in inches)	0.00

MARRIED.—In this city, 3d inst., Jonathan E. Leavitt, M.D., U.S.A., to Mrs. Mary E. Bates, of Roxbury.
—At Albany, N. Y., 4th inst., William G. Wheeler, M.D., of Chelsea, Mass., to Mrs. C. A. Jones, of A.

DIED.—In this city, 5th inst., Dr. Jonas H. Lane, 61.

DEATHS IN BOSTON for the week ending Saturday noon, September 7th, 90. Males, 46—Females, 44.—Accident, 3—apoplexy, 2—disease of the bowels, 2—inflammation of the bowels, 1—disease of the brain, 1—bronchitis, 2—cholera infantum, 18—cholera morbus, 1—consumption, 8—convulsions, 4—croup, 1—diarrhoea, 3—dropsy, 1—dropsy of the brain, 5—drowned, 1—dysentery, 2—epilepsy, 1—typhoid fever, 3—gastritis, 1—disease of the heart, 1—infantile disease, 2—intemperance, 3—laryngitis, 1—disease of the liver, 1—inflammation of the lungs, 2—marasmus, 4—measles, 1—old age, 1—paralysis, 2—premature birth 2—syphilis, 1—tabes mesenterica, 1—ulcers, 1—unknown, 6—whooping cough, 1.

Under 5 years of age, 50—between 5 and 20 years, 5—between 20 and 40 years, 15—between 40 and 60 years, 12—above 60 years, 4. Born in the United States, 73—Ireland, 13—other places, 4.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 7.

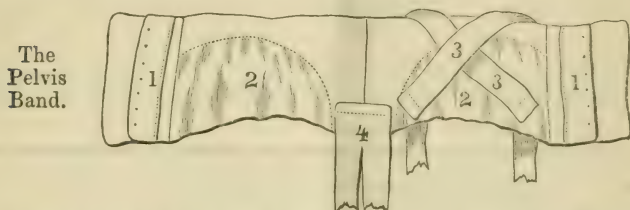
SIMPLE APPARATUS FOR FRACTURES OF THE THIGH.

[Shown and described before the Boston Society for Medical Improvement, August 26th, 1861, by B. E. COTTING, M.D., Associate Member of the Society.]

THE difficulty of maintaining permanent extension adequate to prevent shortening of the limb, after a fracture of the thigh-bone, has been recognized by all surgeons. The great source of difficulty is the tendency to excoriation, or sloughing, in parts under pressure of apparatus. The groin or the perinæum and the ankle generally suffer most severely; so much so, that sometimes extension has to be abandoned early in the treatment, to escape the evils of open sores in these parts. Then again, most kinds of apparatus are complicated or cumbersome, as well as costly, while the common single or Desault's splint is not easily managed well, and is rarely satisfactory. So that a simple contrivance, just the thing to secure the desired result, and at the same time capable of being got up extemporaneously on any sudden emergency, would prove a valuable aid to many a practitioner. The following is offered as an approximation to such a desideratum.

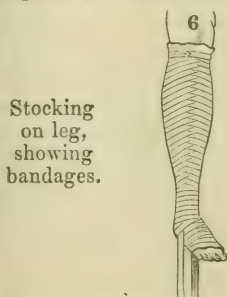
In the first place, a pelvis-band of stout cotton or linen cloth, strongly sewed, should be made to fit closely the pelvis and upper part of the hips. Each individual may possibly require some special measurements, but such are not difficult. As a general rule, the band may be eight or nine inches in width, and long enough to surround the pelvis and overlap a few inches. To fit the prominence of the hips, a semi-oval "bias gusset" may be let in on each side at the lower and back portion of the band, beginning, on the lower border, two or three inches from the posterior median line. The length of this gusset may be about twelve inches at its free edge; and its greatest width six or seven inches. Its fulness may be such as to make the lower edge of the band five or six inches longer than the upper. The shape, proportions and place of the gusset can be better understood by referring to Nos. 2 in the wood-cut on the next page than from verbal description. Two pieces of cloth, Nos. 1, with eyelet holes, metallic if conve-

niently obtained, should be firmly stitched at suitable distances on the front portions of the band. Two strips, or strong tapes, Nos. 3, for securing the long side splint, or a pocket, if preferred, to receive the end of this splint; and a T, or perinaeum strap, No. 4, complete the pelvis belt.



When such a belt has been accurately fitted and properly laced to the pelvis, it will be found sufficient to sustain, without slipping, any amount of "counter extension" requisite. The strain will be uniformly distributed, and no part will be liable to excoriation. Even the perinaeum strap, on which most of the strain comes in ordinary apparatus, will hardly be felt by the patient, and may be secured by a single toilet pin. It will be found quite useful, however, in adjusting the belt, and, from time to time, in guiding a bed-pan. A little attention to the lacing, and the perinaeum strap, will keep the belt in proper position through even a prolonged treatment of many weeks.

In the second place, to obtain the required extension without injury to the ankle or foot, take a long cotton stocking, the thinner the better, and sew upon each side of the leg a strip of strong cotton cloth, which should hang free for a few inches below the foot, as represented in Figure 5. Cut off the tip of the stocking, that the toes may be exposed. Draw the stocking thus prepared smoothly upon the leg up to the knee, or even above it. Apply a thin roller bandage neatly and with uniform pressure from the foot to the top of the stocking, as seen in Figure 6. The several folds of the



roller may be further secured in their places, if thought necessary, by a few stitches with a fine needle and thread. The bandage thus adjusted will retain the stocking in place for a sufficient time. But should the leg waste from long confinement, it is easy, without removing the first, to apply a second bandage, which will give all

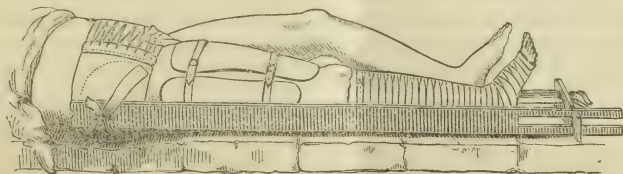
the security desired. Extension being made by the straps below the foot, the whole leg is brought down with the greatest steadiness, and without the slightest danger from undue pressure on any particular portion.

Such a belt and such a stocking we used for many years, in connection with Flagg-Desault's, and other apparatus having foot or cross pieces, movable by screws or fitted with tourniquets, and believe that they possess decided advantages over every other contrivance we have seen tried for the purpose. Moreover, the materials are always at hand, and are of speedy and easy application. But the splints alluded to are not always obtainable at the moment—nor are they essential. One simpler, and equally efficacious, can be readily prepared for the occasion. Take a strip of board two or three inches wide and four feet or so long. Make a hole near one end for the pelvis straps. Cut an open mortice in the other end, ten or twelve inches long, and an inch or more wide. Fit a cross piece, nine or ten inches long, perforated by two holes for the introduction of the stocking straps, to slide in this mortice. See Figures 7 and 8. The cross piece may be retained in position by a pin, as seen in the figure.



To reduce the fracture: having adjusted the pelvis band and the stocking, tie the upper portion of the splint to the band by the straps, Nos. 3. Extend the injured limb and fasten the foot to the cross piece, No. 8, by the stocking straps. If any further extension be needed, the cross piece can be drawn down and secured in place by the pin.

The chief difficulty having thus been surmounted, and a sufficient length of limb secured, any further applications that seem requisite can be easily made directly to the injured part. Short splints can be applied, compresses fitted, wounds dressed, suppuration attended to, without difficulty, as by this arrangement the whole thigh is completely exposed and accessible. Pads and pillows can, of course, be arranged to suit the comfort and necessities of the patient, or the inclinations of the attendant. The whole matter is made plainly evident by the subjoined figure.



Let us take a case, a real one. A physician is summoned to a distant patient (no uncommon thing in country practice), and finds, unexpectedly, that he has a fractured thigh to deal with. It is

near nightfall. There is no time to return for apparatus, and he has none with him. By means of the contrivances we have described, he can soon put his patient into a proper and comfortable condition. While the women of the household are preparing, under his direction, the belt and the stocking, he seeks a suitable board, and with a common wood-saw and a pocket knife, if no better tools are at hand, prepares the splint and cross piece. A common nail answers for the pin. With these he soon has his patient, if not as presentable, at least in as artistic and effective accoutrements as if he had the resources of a hospital at his command.

For fracture of the neck of the thigh bone, the belt is often all that is necessary or advisable to apply. In such cases, the belt should be a little wider, and come down more over the hips. Extension of the limb should be made before lacing up the belt, and the perinæum strap should be well padded and securely fastened. Suitable compression on the injured parts may thus be obtained, while the gusset will in a great measure prevent retraction of the limb.

Roxbury, September, 1861.

SILICEOUS CALCULI FROM THE KIDNEY OF AN OX.

[Read before the Boston Society for Medical Improvement, September 9th, 1861, and communicated for the Boston Medical and Surgical Journal.]

BY JOHN BACON, M.D.

IN the paper on siliceous urinary calculi, read before this Society on June 10th, I stated that our Cabinet formerly contained a little calculus in which silica was found by Mr. Crossley, several years since. It was one of a collection of four from the kidney of an ox, two about the size of an apple-seed, and two smaller. This one was supposed to be lost. Three similar calculi, labelled with the same number as that analyzed by Mr. Crossley, were found by myself to contain no silica. Their analysis was reported on June 10th, but is not included in my paper. Recently, the collection of four calculi has been found by Dr. Jackson, the Curator of the Cabinet, and placed in my hands. Those formerly analyzed by me were from the kidney of a different ox, as appears from the following note:—

AUG. 26TH, 1861.

My Dear Sir,—In your recent examination of the siliceous urinary calculi from the Cabinets of the Society for Medical Improvement and the Medical College, there was a question of identity in regard to one of the Society's specimens, No. 1048, analyzed some years ago, by Mr. R. Crossley, and found to contain silica; the calculi were from an ox, and so also were the calculi that should have been labelled No. 1047. The two specimens resembled each other very considerably, and the one last referred to was by mistake labelled 1048, and handed to you for examination. I now send you the specimen that was actually found by Mr. C. to contain silica; and from his reputation as an analytical chemist, I think that you will confirm his observation. With much regret for the unnecessary trouble I have given you, I remain,

Dr. Bacon.

Yours very truly,

J. B. S. JACKSON.

Having found silica in a little fragment of the calculus which

Mr. Crossley examined, I submitted to analysis a half of one of the smaller ones. It is composed of carbonate of lime chiefly, with a little carbonate of magnesia and traces of phosphate of lime and oxide of iron; some animal matter, and sufficient silica to yield a porous, friable mass, when the other constituents are removed. There was not enough for a quantitative analysis, but I estimate the silica as about one quarter the weight of the calculus. It occurs in the hydrated condition, as in the other calculi analyzed by myself. The two calculi which have been divided exhibit a number of irregular, concentric layers.

MEDICAL PRACTICE IN ITALY.

ROME, JUNE 25th, 1861.

IF Count Cavour's death has become a medical topic, we have to thank the English press for it, which has pronounced a somewhat severe verdict (although a *vere dictum*) against the deceased statesman's physicians. A discussion of that kind is not likely to originate here, where people are wont to accept Fate's last decree at the doctor's hands without much questioning, though he be more than its bearer. The violent epithets so often lavished upon unsuccessful medical performances are rarely used here, and such proverbial jokes as "killing one's patients," and "peopling the cemetery," &c., I have never yet heard from Italian lips. This may, perhaps, be owing to a lack of wit, or to a habit of politeness, although I think that it chiefly arises from a community of views existing between the average Italian doctor and his patients. Both agree upon the necessity of bleeding, not only as an anti-phlogistic remedy, but as a hygienic measure, as something good *per se*; and the use of the lancet is as general as a prescription of tamarind-water or castor oil.

Every country has, of course, its errors and superstitions; but nowhere have I met with a greater readiness on the part of the medical man to connive at them and to share them, than in this land of intellectual equality and moral and social fraternity. Both medical and hygienic superstitions flourish here, and it cannot be said that they are sufficiently controlled and checked by those who are competent to do so. Fortunately, bleeding is the only heroic practice too frequently indulged in. In all other respects the Italians are rather on the side of caution and "masterly inactivity." They have a great horror of large doses, and a still greater one of heroic and poisonous drugs. Laudanum is rarely resorted to, and never used as a household remedy. The blue pill, that panacea against all the blues of splenetic England, is not even known by name here, and as to calomel and corrosive sublimate, anything beyond a quasi homœopathic dose would scandalize the pharmacist himself. I once prescribed sublimate in a case of in-

ipient amaurosis, and as the patient, who lived in the country, could not come oftener to town to see me than once a month, I was requested by him to prescribe for a long time. I wrote accordingly, six grains of corrosive sublimate to be dissolved in one ounce of water, and of this solution fifteen drops to be taken twice a day (with a tablespoonful of syrup and gum-water). Each dose, apart from the vehicle, was, therefore, less than one sixth of a grain; but, nevertheless, the pharmacist, who had, of course, not taken the trouble to calculate this, was frightened by the very sight of those six grains at the head of the prescription, and actually refused to make it up. "He had never been called upon to dispense such doses of sublimate." It sounds incredible, but still it is true that this unfortunate prescription was refused at three different shops, until I interfered personally and pointed out the minuteness of the dose.

This is a good trait, after all. It is erring on the safe side, and I will not complain of it. Considering, too, that the Italian pharmacist is under little or no control from the authorities; that his profession is free and open to any ignoramus who may choose to enter it; that there is not even a national Pharmacopœia in existence, and, consequently, no common standard for prime materials and magisterial preparations, one can only congratulate the public on this wholesome dread of overdoses and poisons, which is, perhaps, the result of the very system that throws so little legal, and so much moral responsibility on the pharmacist. Most of the druggists do a thriving business, and yet I am told that even in the most frequented apothecaries' shops the vessels containing calomel and opium sometimes remain untouched for days.

Ammonia, that soother of headaches, that best of stimulants after a sunstroke, is utterly ignored in this sunny land, and only used externally for snake-bites; while tamarind-water, which, in the Tropics, is hospitably offered as a refreshment to a thirsty visitor, is gravely prescribed and discussed here as a therapeutical agent. Some days ago, one of your London contemporaries remarked that of all the continental nations the Italians were most similar to Englishmen. If there be truth in that statement, which I do not deny, it certainly cannot hold good with regard to medicinal and hygienic habits; for in this respect no greater contrast can be imagined than that which exists between England and Italy. Even the Italian cookery, although apparently much more like the English than the French cuisine, is in its principles, at least, the very reverse of English cookery. Under-done meat and well-done vegetables on one side; on the other, over-done meat, in fact meat boiled to rags or into poultice, under-done vegetables and all but raw paste, rice, and other amylaceous food! Now, this is not a case for saying. "All tastes are tastes and equally legitimate," for a love for half-raw macaroni shows a perversity of instinct, which is condemned alike by nature and science.

Rasori was an Italian; Brown an Englishman. Nor could it have been otherwise. England could never have sworn allegiance to contra-stimulism, while Italy could never have originated Brown's doctrines, and although the time of schools and systems has passed away, the two nations still cling instinctively each to the tenets of its once national faith, so that the self-same disease which in England would probably be treated with beef-tea and those spirituous stimulants so dear to the British heart, might still be attacked, on this side of the Alps, with the lancet and the everlasting tamarind-water.

Italy, and especially Tuscany, can boast of many clever physicians, some of whom are eminent and erudite men, quite *au courant* of the scientific achievements all over the world, and who cannot be accused of lagging behind their age—men who have outgrown systems and schools, and who would never own allegiance to any one of them. Moreover, the Italians, like all Latin races, are notoriously deficient in what phrenological slang calls the “organ of veneration,” and are naturally not much disposed to bow to any authority. But it seems that national pride amply makes up for this deficiency, and causes them to do more than justice to those in whom they see contributors to the past or present glories of their country. I have, when at Naples, heard the quaint apophthegms of the Salernitan school most unctuously expounded in the lecture-room, and the students evidently felt the prouder, if not the wiser, for it. And as to Rasori and Tommasini, their doctrines, although apparently ostracised, are still preached under a different garb, and right heartily practised; and, where they are not fully carried out, it is merely a concession made, and that reluctantly, to the ruling spirit of the age. I remember a clinical *matinée* at the Santo Spirito Hospital, in Rome, where a Professor V. took occasion to open his heart on this subject. We were stopping at a certain ward (I have forgotten the name of the protecting Saint) which contained none but tuberculous patients, who occupied about one half of the beds. “I can recollect the time,” said the Professor, who was an old man, “when this ward had scarcely two or three inmates at once, and sometimes remained empty for weeks; while now it is often full, and never less than half filled, with consumptive patients. This is a curious fact which can only be explained by therapeutic innovations, there being no reason to suppose that a change of climate or an alteration of other hygienic circumstances sufficient to account for these facts, should have taken place within so short a time. But, he continued, as pneumonia has always been of very frequent occurrence at Rome, it is only rational to assume that the statistics of tuberculosis must, in the long run, be dependent on the mode of treatment habitually used for pulmonary and bronchial inflammations. Now, when I was a young man, and Rasori's principles were still professed by almost every physician, pneumonia was cured with

bleeding, and nothing but bleeding, and the bleeding was repeated until the blood let no longer showed any signs of the phlogistic crust, and it was this that prevented hepatization and formation of tubercles."

It requires no lawyer's wit to use this plea against the pleader, and to come to the opposite conclusion, that the present increase of tuberculous diseases in Italy may be the result of the Sangrado treatment employed by the Rasorianists against the pneumonias of the former generation—not to speak of the increase due to the improved diagnosis by the physical examination of the chest, which must have had some influence on these statistics. The spacious hall of the ground floor was filled with a double row of beds, all occupied by persons affected with some thoracic inflammation! The mortality then was very great indeed, in spite of the repeated bleedings practised on every one of the patients, and as to the survivors, I wonder whether they were indebted to their medical attendants for their escape from tuberculosis.—*Foreign Correspondence of the London Medical Times and Gazette.*

ON DEATH FROM CHLOROFORM.

BY W. MARCET, M.D., F.R.S.,

AS-ISTANT PHYSICIAN TO THE WESTMINSTER HOSPITAL, LONDON.

THE case of death from chloroform, reported by Dr. Dobbie in the *Medical Times and Gazette* for the 29th of June, induces me to offer your readers a few practical observations on this subject.

When chloroform is inhaled, and consequently brought into contact with the air-cells of the lungs, it passes rapidly into the blood, by means of which it is carried to the brain. If the administration of the anæsthetic agent be suspended, the chloroform will be eliminated from the body by the respiration, each inspiration displacing must of the vapor contained in the blood exposed by the lungs to the action of air during that inspiration. The elimination from the blood of any very volatile substance possessed of a stable chemical composition may be considered, as a rule, to take place through the lungs. This might have been anticipated by a consideration of the displacement of the carbonic acid of the blood by the air inspired, and has been placed beyond doubt by a well-known beautiful experiment of Claude Bernard, where an aqueous solution of sulphuretted hydrogen being injected into the blood of a dog, the animal in the course of one or two minutes expires the whole of the poisonous gas. Messrs. Lallemand, Perrin and Duroy have shown experimentally that this law is applicable to chloroform, and consequently there is not the slightest doubt that when blood contains chloroform it is removed therefrom by means of respiration.

If the air inspired be pure, the displacement of chloroform from

the blood in the lungs will be very great; if this air should contain chloroform the displacement will be less, just as when air containing a large proportion of carbonic acid is breathed, the removal of the carbonic acid of the blood is checked. When a patient begins to inhale chloroform, a portion is absorbed by the blood, the remaining is expired; but shortly afterwards, in addition to the expiration of that part of the chloroform which has not been taken up by the blood, a certain quantity of that which has been absorbed is also ejected, being displaced by the air mixed with the chloroform inhaled. At this stage, however, there is still an accumulation of the anæsthetic agent in the blood, more being taken into the circulation than given out; gradually complete insensibility is produced, and the handkerchief is removed from before the face of the patient; he now begins ridding himself rapidly of the chloroform, and recovers consciousness, unless more of the anæsthetic agent be exhibited. By the careful administration of chloroform the state of insensibility may be kept up for a considerable length of time. During this period it is obvious that the accumulation of the vapor in the blood no longer takes place, otherwise it would invariably produce death; there must consequently be an equilibrium between the quantity of chloroform absorbed, and that which is displaced and eliminated by the process of respiration. If, during this stage of insensibility, from any cause whatever, the power of absorption of the blood for chloroform be suddenly increased, or its property of giving it out to the air inspired be diminished, then death will take place from an accumulation of the vapor in the blood. It is difficult to imagine that the power of blood of absorbing the substance under consideration should be suddenly increased; but there is a very simple cause impairing its elimination from the blood, viz., the administration of the chloroform vapor in too concentrated a condition. Just as an excess of carbonic acid in the air prevents or interferes with the elimination of that contained in the blood, so must an excess of chloroform in the air prevent or interfere with the exit of chloroform already existing in the blood; therefore, the blood goes on taking up chloroform, and giving out less than a quantity equal to that absorbed; at the same time the evil may be increased by a few deep inspirations taken unconsciously, although apparently with the view of ejecting the poison, and life is suddenly extinguished.

This view would perhaps partly account for the case of death reported by Dr. Dobbie; in addition to which I might observe, that the patient being a drunkard, we may assume that the action of his lungs was more or less impaired from their being continually engaged with the elimination of alcohol; the delicate membrane of the air-cells was, probably, thickened, which at first acted more or less as an obstacle to the admission of chloroform into

the blood. A statement of the author referred to, appears to support the present assumption; he observes, "for two or three minutes he (the patient) did not come much under the influence of the drug (chloroform), inhaling it, however, readily enough." It was, therefore, apparently some time before the patient could be narcotised, as is the case, if I mistake not, with most drunkards. The exhibition of chloroform being continued, more of it found its way into the blood, while we may surmise that the elimination of the vapor already absorbed was checked from the thickened condition of the pulmonary membrane, which interfered materially with the action of the air inspired along with the chloroform; or in other words, the chloroform passed through the lungs into the blood, while the air was unable to do so with a sufficient degree of readiness to remove an equal quantity of the vapor out of the blood; from this circumstance, there resulted an excessive accumulation of chloroform in the blood.

From the foregoing observations we may conclude:—

1. That chloroform must be administered cautiously, and its effects watched with particular attention, if, although the vapor be freely inhaled, the patient does not become insensible within the usual time.

2. That in every case where chloroform is administered, as soon as the state of insensibility is obtained, the vapor must be exhibited diluted as much as possible with pure air; and air free from the anæsthetic agent ought to be allowed frequently into the lungs to remove the excess of the vapor present in the blood.

3. That during the administration of chloroform great attention should be paid to the state of the respiration, which ought to guide the exhibition of the anæsthetic agent still more than the condition of the pulse. If the inspirations become less deep and respiration appears failing, air free from chloroform ought to be immediately allowed into the lungs, not only because this state of the respiration is an indication of there being an overdose of chloroform in the blood, but also because the diminished respiration is in itself a cause of danger by preventing the blood from ridding itself of the chloroform it contains.

4. That when a patient has sunk under the effects of poisoning by chloroform, the only means of restoring animation is by artificial respiration, adopting such method as is best calculated to introduce as much air as possible into the lungs in order to remove the poison from the blood, at the same time stimulating the action of the heart.

It is due to Messrs. Lallemand, Perrin and Duroy to state that they have already called attention to the importance of looking closely to the respiration during the administration of chloroform; but these gentlemen have overlooked the fact that the presence of an excessive proportion of chloroform in the air inspired must act more or less as an obstacle to the elimination of the vapor which

has already been absorbed—a circumstance which ought to be taken into consideration on every occasion where chloroform is exhibited.—*Med. Times and Gazette*.

Bibliographical Notices.

An Address on the Epizöoty lately prevalent among Swine. By EDWIN M. SNOW, M.D., of Providence, R. I. *With the Results of Post-mortem Examinations*, by G. L. COLLINS, M.D., of Providence. Read before the Annual Meeting of the Rhode Island Medical Society, June 19th, 1861.

THIS is a pleasantly-written treatise on the epizöotic disease which has prevailed with more or less severity in various portions of the country for the last six or eight years, and popularly known as "*hog cholera*." From *post-mortem* examinations carefully made in nine cases, in five of which the animal died of the disease, the following pathological appearances were noted:—Purpuric spots upon the skin in six cases—upon the serous membranes in two. Ulcerated spots on the feet and legs in four; also in the mouth of four of the six examined. Heart healthy. Lungs hepatized to a greater or less extent in 7; and in 5 on both sides—in all of which cases there were pleuritic adhesions. Stomach and small intestines for the most part healthy. The large intestine was most frequently diseased; being in five ulcerated, and in six somewhat inflamed and softened. Liver generally sound. Kidneys in every case pale and of a yellowish color; and shown by the microscope to be fatty. Bladder healthy. Urine, in the four cases examined, albuminous.

It is the opinion of Dr. Snow, after a careful study of this affection, that it is a disease of the blood, producing a depraved condition of the system, not unlike that of typhus fever. Bearing no exact resemblance to any disease which occurs in the human subject, Dr. S. is inclined to regard it as probably nearly identical with the disease mentioned by Virgil, accompanied by inflammation, ulcerations, purulent deposits, &c., and to which the term "*murrain*" has been applied, and with the *pleuro-pneumonia* of Great Britain and New England.

With regard to the causes, the writer regards them as

1st. An epidemic atmospherical poison.

2d. The local circumstances adapted to receive and propagate the poison existing in the atmosphere, the latter comprising impure air arising from filthy and crowded pens, together with unhealthy food and the want of pure water.

The treatment recommended is the support of the system by stimulants and tonics, pure air and pure cold water, and healthy nourishing food.

This paper of Dr. Snow is opportune, and forms a clear and brief digest of the subject on which it treats.

Transactions of the Medical Society of the State of New York, for the year 1861. Albany: 1861. Pp. 408.

THIS volume contains many interesting and valuable medical papers. The first, is the annual address by the late President, Dr. Daniel S.

Jones, the announcement of whose death, we regret to see, was simultaneous with its publication. A biographical memoir of Dr. Jones, by Dr. William Taylor, also appears in this volume. It contains also a large number of reports and cases which were presented at the annual meeting, and of which we shall hope, from time to time, to avail ourselves. Among them may be mentioned one on the *Statistics of Suicide in the City of New York*, for the years 1859-60, by Dr. J. G. Adams, of New York; two papers on *Diphtheria*, by Drs. U. Potter of Hallsville, and Ferris Jacobs of Delaware; an interesting case of *Suspected Poisoning*, with the post-mortem examination and chemical analysis, by Dr. J. G. Orton, of Binghamton; *Amputation of the Lower Extremities with reference to Substitutes for the same*, by Dr. Douglas Bly, of Rochester; *Three Cases of Rupture of the Uterus, with Remarks*, by Dr. G. J. Fisher, of Sing Sing; *Memorial relative to the Medical Profession and its legal protection*; a *Report on Medical Topography and Systematic Drainage*; a case of *Amputation of the Cervix Uteri*, by Dr. J. Marion Sims, of New York; and several other papers—the whole comprising an important addition to our medical literature.

Hints on Insanity. By JOHN MILLAR, L.R.C.P., Edin., Medical Superintendent of Bethnall House Asylum, London. 16mo. Pp. 105, with an Appendix. London. 1861.

THIS is an excellent little book. It contains just about as much on the subject of insanity as a general practitioner in his daily walks needs to know. There are often occasions when he is puzzled to appreciate justly the first approaches of mental disorder, or to know precisely what to do if he does detect them. This little volume meets the want in such cases exactly. An appendix gives valuable information with regard to the steps for procuring admission to some of the asylums in Great Britain. We should be glad to see a re-print of it here, and the appendix might be replaced with similar information with regard to our own institutions.

Description of Cases communicated to the Pathological Society of London, during the Session of 1859-60. By Dr. JOHN OGLE, F.R.C.P., Assistant Physician to St. George's Hospital. Pp. 49.

THIS is an interesting collection of cases, taken, we presume, from the publications of the Pathological Society. Some of them are of great rarity, and all of them of great interest. Among them we find an interesting case of tumor of the brain; several, of aneurism; one, of a large mass within the cavity of the uterus, supposed to be a fibrous tumor, but which proved to be formed by a retained placenta and foetal membranes; several, of a hoop of calcareous matter encircling the base of the heart; a case of hydatids of the omentum; four cases of spina bifida; and, in conclusion, descriptions of four specimens of skin from patients affected with elephantiasis Arabum. In connection with these it is mentioned, on the authority of Mr. Francis Day, Civil Surgeon at Cochin, in Madras, that

“The coast is a damp low-lying one, and elephantiasis of the limbs (but not of the scrotum) is very common; the number of native Christians in Cochin affected by it being about one in every seventeen and one eleventh, and about one in

every nineteen and three fourths of the Portuguese, males and females being equally affected : in many cases all the limbs are affected at the same time.

"A kind of fever almost invariably occurs, possessing a cold, a hot, and a sweating stage, co-existing with which a bubo is almost always found in the affected limb ; and it is subsequent to the fever that the effusion in the leg comes on.

"These effusions appear to be of three varieties :—

"1. Simple œdema ; 2. Albuminous effusions ; 3. An organizable (fibrinous) one.

"In such cases, amputation in the several years of 1854, 1857 and 1858 has quite removed the disease, no return occurring. In old-standing cases treatment appears unavailing."

Mr. Day himself had no less than fifty-one cases under treatment within six months. The pamphlet is illustrated by a number of excellent wood-cuts.

On the Time and Manner of Closure of the Auriculo-Ventricular Valves.

By GEORGE B. HALFORD, M.D., M.R.C.P., Lond., Lecturer on Anatomy at the Grosvenor Place, School of Medicine. Pamphlet. London : John Churchill. 1861.

THE purpose of this little brochure is to prove that the contraction of the auricles fully distends the ventricles of the heart, and closes the auriculo-ventricular valves, before the contraction of the ventricles begins.

"When the auricle is about to inject the ventricle, the latter is empty and contracted, with its distal or ventriculo-arterial valves firmly shut down by the pressure of the blood upon their upper surfaces. Immediately the auricle contracts, its contained blood passes into (distending and lengthening) the ventricle ; the force which it transmits, not being sufficient to overcome the arterial pressure and weight of blood upon the upper or arterial surface of the semilunar valves, is expended in distending the ventricle and closing the auriculo-ventricular valve, which then forms one of the walls of the ventricle. To this succeeds the ventricular contraction ; the auriculo-ventricular valve, being already closed, now becomes tense, the pressure in the ventricle overcomes that in the artery, and the semilunar valves are raised."

* * * * *

"The rapidity and power of the ventricular action would be impaired were any of its force expended in a backward direction, had it indeed to close the auriculo-ventricular, previous to opening the semilunar, valves."

The author, in conclusion, says :—

"The chordæ tendineæ by position serve to open out and prop up (as stems of water-plants do their leaves) the flaps of these valves ; their firm connection at the circumference with the zona tendinea tends also to their support ; moreover, the elasticity producing the upward curl assists in the approximation of their edges ; finally, the pressure exerted by the blood from the auricle brings all into play, and their closure is effected."

Army Medical Intelligence.

FROM our army intelligence, it will be seen that the health of our troops is on the whole favorable. The surgeon of the 9th Massachusetts regiment, Dr. Pineo, under date of Sept. 4th, reports that "the health of the regiment is very good. Five or six convalescent cases only remain in the Camp Hospital, and a few in the General Hospital who received gun-shot wounds."

The following extract is from a report of Dr. J. Franklin Dyer, surgeon of the 19th Massachusetts regiment, dated

MERIDIAN HILL, WASHINGTON, }
 Sept. 5, 1861. }

To the Surgeon General,

SIR,—* * * * * We arrived in Washington on Friday last, and on Saturday marched to the ground of our present encampment. Our men were generally well on the way; one man had a fit while on the Common in Boston, but recovered in time to proceed with us, and is now well. While leaving the cars in Washington, one man slipped on the track, and the wheels passed over his hand, which, however, was protected by his musket, and the injury to the hand was slight. He is now on duty. We have in Hospital this morning 9; in quarters, 3. Two cases primary syphilis—one of them complicated with gonorrhœa and paraphimosis, now doing well, after dividing the stricture. Two cases bronchitis. We shall be obliged to discharge two or three men who came from the office in Pitts street about the time of our leaving Lynnfield, when no opportunity was afforded for examination by us.

We have some diarrhœa—quite manageable, and on the whole, the health of the regiment is good, much better than that of our neighbors; how long it will continue so, of course I cannot say.

The surgeon of the 14th Massachusetts regiment, Dr. D. Dana, reports as follows:—"We are beginning to have fever and ague, and as the regiment which was in the fort before us, reports 500 cases for the last month, I suppose we shall have plenty of sickness. One man died this week who was in the Hospital only about an hour; he probably died of some organic disease of the heart. We have had a few accidents, but on the whole we are doing well."

In Camp Andrew, Baltimore, under date of Sept. 7th, the surgeon of the 17th regiment, Dr. I. F. Galloupe, reports as follows:—"I have the honor to report that we are encamped on the beautiful and healthful spot called the 'Stewart Place.' We have no prevailing disease, and no serious sickness. We have on the average about ten men in Hospital. Their complaints are mostly caused by sleeping on the cold ground. After much effort I have obtained board floors for the tents; a feat, I believe, no other regiment has performed, although most of them have attempted it. My Hospital is in a house near the camp, and is kept in complete order by the steward. The hospital books are opened, and we are getting into good working order. We are now having water of the best quality brought into the camp (through pipes), from the public water works. I have charge of the Boston artillery, that corps being attached to our regiment.

SOLDIERS' RATIONS.—The following statement has been published by the Commissary General:—

Office Commissary-General Subsistence, Washington, Aug. 19, 1861.
 —From the numerous letters that have been referred to this office, complaining of the *want of food* and the *bad quality* of that furnished by the Commissariat to the volunteers, I am led to believe that a brief statement of the truth may give satisfaction to the public mind.

Before the action of the last Congress, the ration (used by the army for many years) furnished to the volunteers was as follows:—

Three quarters of a pound of pork or bacon, or $1\frac{1}{4}$ pound of fresh or salt beef; 18 ounces of bread or flour, or 12 ounces of pilot bread, or $1\frac{1}{2}$ pound of corn-meal.

To 100 Rations.—Eight quarts of beans or peas, or 10 pounds of rice, or 140 ounces of desiccated potatoes, or 88 ounces of desiccated mixed vegetables: 10 pounds of coffee; 15 pounds of sugar; 4 quarts

of vinegar; $1\frac{1}{4}$ pound of adamantine candles; 4 pounds of soap, and 2 quarts of salt.

This ration has been found, by long experience in the regular army, to be ample.

Congress, by an act of the last session, increased this ration, until it is now as follows:—

Three quarters of a pound of pork or bacon, or $1\frac{1}{4}$ pound of fresh or salted beef; 22 ounces of bread or flour, or 1 pound of pilot bread.

To 100 Rations.—Eight quarts of beans, 10 pounds of rice or hominy, and 1 pound of potatoes, three times a week, or a substitute therefor; 10 pounds of coffee, 15 pounds of sugar, 4 quarts of vinegar, $1\frac{1}{4}$ pound of adamantine candles, 4 pounds of soap, and 2 quarts of salt.

Extra issues of molasses are occasionally made.

This ration, if cared for, and properly cooked, is *more than can be eaten*; and this ration the Government is ready to furnish.

The method of procuring it for the regiments is simple:—Each Captain of a company makes to his Colonel a return, stating the number of men in his company, and the number of days drawn for, signed by him. These company returns are consolidated by the regimental Quartermaster, and signed by the Colonel. This return is an order on the depot or Brigade Commissary for that quantity of stores; and it is the duty of the Regimental Quartermaster to see that he receives the full amount, and that it is all of good quality.

When the stores reach the regiment, it is the duty of each Captain to see that his company receive their due, as drawn for by him on his return, and that the quality is good.

If the regimental Quartermaster and Captain attend to their duty, the men *must* receive their full allowance as set forth in the ration above, and not an article but of good quality.

The Government has on hand ample supplies of the very best quality, and is desirous of doing full justice to the volunteers. If the volunteers do not receive them, the fault is that of their own officers.

J. P. TAYLOR, A. C. G. Sub.

APPOINTMENTS.—Dr. Nathan Hayward has been appointed Surgeon of the 20th Massachusetts Regiment, in place of Dr. Henry Bryant, promoted to be Brigade Surgeon and attached to Gen. Burnside's command. Dr. Edward H. Revere, of Canton, has been appointed Assistant Surgeon in place of Dr. Hayward.

Dr. George Derby, of Boston, has been appointed Surgeon, and Dr. Silas E. Stone, of Walpole, Assistant Surgeon, of the 23d (Col. Wilson's) regiment.

Dr. James Holland, of Westfield, has been detailed to the new regiment of cavalry.

Dr. Oscar DeWolfe, of Chester, has been appointed Assistant Surgeon of the same regiment.

Dr. George A. Otis, of Springfield, has been detailed to the regiment now forming under Col. Horace Lee.

Dr. Francis Leland, of Milford, has been appointed acting Surgeon for the regiment in the western part of the State, Col. Upton, and Dr. J. Marcus Rice, of Worcester, Assistant Surgeon.

Dr. P. O'Connell, Assistant Surgeon of the 9th Mass. Regiment has resigned his commission, and received an honorable discharge. Dr. F. M. Lincoln, of Boston, has been appointed to fill the vacancy.

Dr. J. H. Warren, of Neponset, has passed a successful examination for the post of Brigade Surgeon, and will probably receive the appointment.

Dr. F. B. A. Lewis, of Adams, N. Y., has been appointed Assistant Surgeon in the U. S. Navy.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 19, 1861.

INGROWING TOE-NAIL.—TREATMENT BY PERCHLORURE DE FER.—“Surgical operations,” some one has said, “are the reproach of surgery.” And although this epigrammatic saying, literally interpreted, would do great injustice to a noble art, yet it would be well for humanity if it were possible in some instances to change the reproach which attaches, or should attach among the initiated, to bad science, to a popular stigma upon the surgeon. This, however, is rarely the case, for it is next to impossible for the public rightly to appreciate all the considerations which must enter into the question of justifiableness or the contrary of any given surgical operation. Not that we would for a moment cast a reflection upon the honorable, high-minded, judicious surgeon, who conscientiously feels the great responsibility which he assumes in undertaking a capital operation. It is a responsibility which often raises the operator to the rank of a hero, albeit but a small number can properly estimate his claim to such a distinction. All honor to those, and they are not few, who have been and are willing, in desperate cases, to take on themselves the heavy charge of imperilling the life of the patient for the uncertain chance of removing what threatens it more distantly, or makes its present burden heavy. Nevertheless, few will deny that every discovery which substitutes a comparatively mild and painless remedy for a painful, even if not positively dangerous surgical operation, confers a great blessing on mankind. Thoughts like these have come into our minds from time to time in connection with the seemingly small but exquisitely painful operation of extraction of an ingrowing toe-nail. We know it is regarded as one of the most trifling of operations, but under the circumstances for which it is performed it certainly is to most patients a very formidable one. We have been glad, therefore, to see within a few years various methods of treatment recommended, by which the painful alternative of evulsion may, as we have reason to believe, be successfully avoided. In a recent number of the *Gazette des Hopitaux*, M. Wahu, Principal Physician of the Military Hospital at Nice, reports the successful treatment of this affection in his own person without an operation. He prefaces his account by some reflections on the nature of the operation by extraction. It has always been his theory, he says, and a theory based on personal experience, often repeated, of very severe pain, that every man has within himself the power of endurance to meet any amount of physical suffering which may fall to his lot. Satisfied of his own ability to justify this theory on many trying occasions, he yet confesses that it was not without horror that he contemplated the possibility of the necessity of a resort to this

operation as the only cure for an *ongle encarné* from which he had suffered for a long time. He therefore tried many expedients, hoping to avert the dreaded operation. At last, after an ineffectual trial of alum, and Vienna paste, M. Wahu says:—

“Finally, one day, provoked at being so disabled by a trifle, which, in spite of all my force of will, prevented my walking, I examined again for the twentieth time the seat of the disease, and was struck with the idea that if I could dry up, or even *tan* the diseased surface, so that the ulcer might be converted into a firm surface, capable of resisting the cutting action of the edge of the nail, I might obtain a complete cicatrization, and consequently a cure. Running over in my mind the most energetic tanning substances, I decided on employing the *perchlorure de fer*. I obtained some in a powdered form, and insinuated it as deeply as possible between the free edge of the nail and the ulcer. I felt almost immediately a moderate sensation of pain, accompanied by a feeling of constriction and a strong burning sensation. A quarter of an hour after I attempted to walk, and, to my great satisfaction, I found I could bear my weight on my foot throughout its entire length without the least pain; a thing which I had not done before for many months. The following day, I carefully examined the diseased parts, and found them mummified and as hard as wood. I applied a fresh quantity of perchlorure de fer, which I allowed to remain for a quarter of an hour, but I have reason to believe this application was useless, as the mummification was complete by the first process. I continued to walk without the least thought of my *ongle encarné*, and about three weeks after was able, by means of a pediluvium, to remove the hardened layer of skin, under which I found a tissue of new formation which perfectly resisted the pressure of the edge of the nail. Shortly after the whole had returned to its normal condition, and since more than two years have passed without a return of the disorder.”

It may be thought we have taken up a great deal of space for a mere trifle. An ingrowing nail is certainly not so formidable an object to contemplate as many that come under the eye of the surgeon, but it certainly is no trifle. An old nursery rhyme, “For want of a nail the shoe was lost, for want of a shoe the horse was lost,” &c., aptly illustrates its importance. This small affection, as it seems, is considered good ground for rejecting a recruit who offers for the army; and certainly in active service its occurrence might be as fatal to the unfortunate possessor as the loss of its iron representative in the doggerel above quoted was to the owner of the horse. If it can be cured so easily, without an operation, it at once becomes an unimportant malady and need not exclude many an otherwise able-bodied man from the service of his country; and should it occur while in service, the detention of several weeks in hospital, after the operation of evulsion, is avoided. There is another consideration of no trifling importance, urged by M. Wahu, namely, that as no one now-a-days would think of doing the operation without using anæsthetics, the danger of employing these agents is averted. In Europe, where chloroform is almost the only anæsthetic used, this is by no means an unimportant consideration, and M. Wahu refers to a fatal case of its employment on the occasion of this very operation. A second case, which occurred in our immediate vicinity, must be fresh in the memory of many of our readers.

We would add, in conclusion, that we see no reason why the solution of the perchloride, in which condition this salt is best known here, may not be as effectual a remedy as the salt in a solid form.

CAUSE OF THE BRUIT DE DIABLE.—In a paper on Chlorosis by M. Aran, published since his death, in the *Gazette des Hopitaux*, he dis-

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cusses the question of the origin of this *souffle*, about which there has been so much difference of opinion among medical men. He quotes Bouilland, Beau, Grisolle, Hardy and Béliier as adopting the theory that it is produced in the arteries, while he himself is of the number of those who ascribe it to the veins. In support of this view he adduces the fact of its continuity, and quotes an article of his own, formerly published in the *Archives de Médecine*, as follows:—

“When the continued sound is superficial in the neck, it is sufficient to press lightly on the external jugular vein with the finger on the stethoscope to cause the murmur to cease immediately, and we can thus make it to appear and disappear at will by relaxing or increasing the pressure. When, on the other hand, it is deeper, we have only to press lightly on the internal jugular at the middle of the neck, where it is sufficiently superficial, and immediately the continuous murmur ceases, and we hear only the intermittent sound which must be produced in the carotid. These experiments seem to me to be of a nature to convince the most incredulous that the *bruits de souffle* are produced in the veins.”

As an argument in favor of his opinion, M. Aran adduces the recent observations of M. Sappey:—

“In cirrhosis of the liver, as well as in all the affections which have for their result a great obstruction to the hepatic circulation, you will see raised on the surface of the abdomen about the umbilicus, great veins like a Medusa’s head, which maintain the connection between the portal and general circulation. If under these circumstances you apply your ear armed with a stethoscope to these vessels, you will hear a most marked *souffle*. I would inquire of my opponents, what are the arteries which the stethoscope, applied in this region, can press upon?”

POLYURIA FOLLOWING DIABETES MELLITUS. DEATH BY PHTHISIS.—A patient has recently died in the service of M. Trousseau, affected with polyuria (*diabetes insipidus*), who, in 1856, was affected with diabetes mellitus. During his last sickness the urine was frequently examined, and not a trace of sugar could be found. At the autopsy, an interesting disorganization of the walls of the fourth ventricle of the brain was found, consisting in a general congestion and a fatty degeneration of the nerve cells of the whole of this region. This observation goes to confirm, says the *Gazette des Hôpitaux*, the beautiful researches of M. Cl. Bernard on the effects produced by a lesion of the floor of the fourth ventricle.

TREATMENT OF DIABETES.—M. Demcaux, in a memoir presented by M. Velpeau to the French Academy in his name, announces that for many years he has treated diabetes mellitus by the extract of rhatany and burnt alum in equal quantities. Two cases of complete cure by this treatment are related in this memoir, and the author promises hereafter to treat the subject with all the details that its importance demands.

NUMEROUS CESAREAN OPERATIONS BY ONE PRACTITIONER.—Dr. Winckel, of Gummersbach, near Cologne, practising among a rural population living in a very wretched hygienic condition, and very subject to osteomalacia, has had occasion during nineteen years to perform the Cesarean operation, on account of deformed pelvis, *thirteen* times, the deformity arising from osteomalacia in eight, and from rickets in five instances. In four of the cases gastrotomy was required only, as, in consequence of the rupture of the uterus, the children lay in the cavity of the abdomen. This occurred twice in one woman, who had already

once before undergone the operation. Of these three women, two recovered; and, in fact, the issue of the operations must be regarded as favorable, seeing that six of the women lived, one of them having been operated upon three times, and therefore giving a proportion of eight recoveries to five deaths. After the operations, which were performed under chloroform, opium was given, and no inflammatory symptoms ensued.—*Monatsschrift für Geburtskunde*, vol. xvi., p. 401.—*London Medical Times and Gazette*.

RE-VACCINATION IN THE PRUSSIAN ARMY IN 1860.—During the year 1860, 69,096 individuals were either vaccinated or re-vaccinated. Of this number, 57,525 exhibited distinct cicatrices from former vaccinations, and 7,420 indistinct cicatrices, while 4,151 showed no marks at all. The vaccination went through its regular course in 44,193, was irregular in 8,266, and was without result in 15,647. These last, vaccinated again, gave 5,577 examples of success and 11,650 failures. During the year there occurred among the soldiers who were successfully re-vaccinated, and others who had been so in former years, six cases of varicella and one of varioloid, but no case of variola was met with. Thus, during the year 1860, of 69,096 re-vaccinations, 49,770 proved successful, i. e., 72 per cent. In the entire army there occurred 44 cases of pox during 1860—viz., 17 varicella, 23 varioloid, and 4 variola. Of these, 3 cases of the varicella, 14 of varioloid, and 3 of variola occurred in persons who had not been re-vaccinated; 8 of varicella, 8 of varioloid, and 1 of variola occurred in those who had been re-vaccinated without effect; and the remaining 7, as stated above, occurred in those who had been re-vaccinated with success. Three of the cases of variola died.—*Preuss. Med. Zeitung*, 1861, No. 13.—*Ibid*.

PHLEGMON AFTER VACCINATION.—A case was related at the Société de Chirurgie of a healthy child, two years of age, living in the country, whose life was nearly lost through phlegmonous erysipelas following vaccination with healthy virus. A succession of abscesses formed during six weeks in the axillary and subpectoral regions, while the general symptoms much resembled those met with in meningitis. In the Society this was regarded as an example of a complication which may occasionally supervene after the most trifling operations. M. Robert and various other members expressed their opinion that the chances of consecutive inflammatory accidents would be diminished if much larger intervals were left between the punctures than is generally the case. M. Giraldès, agreeing in this precept, still thought that more importance should be attached to the condition of the health of the vaccinated infants, for in the Children's Hospital, the inmates of which manifest great morbid aptitudes, phlegmonous erysipelas is not rare, even after the most carefully-executed vaccinations.—*Gazette Hebdomadaire*.—*Ibid*.

POISONING BY STRYCHNINE APPLIED TO THE PUNCTUM LACHRYMALE.—Dr. Schuler relates an interesting case which occurred in Langenbeck's practice. In a case of amaurosis, in a man 50 years of age, about the twelfth of a grain (less than five milligrammes) of pure strychnine was introduced by means of an ear-pick into the *punctum lachrymale*; but as during this manipulation a portion of the powder was lost, about three milligrammes only entered the punctum. Three or four minutes had not elapsed when the patient's face became livid, and he was seized with spastic yawnings and vertigo. Free admission of air and cold aspersions were had recourse to, and "lavements" (!) were administered. The symptoms continued to increase, as shown by the loss of speech and pulse, convulsive respiration, and violent tetanic shocks. Death seemed inevitable, when the severity of the symptoms abated, and after a copious evacuation of urine and faeces, all had passed off in less than half an hour. From this fact it is evident that death might be rapidly caused by depositing in the corner of the interior of the eye from 5 to 15 centigrammes of strychnia; and supposing the remaining adherent powder to have been cleaned away, the detection of the cause of death might become a matter of extreme difficulty.—*Gazette Médicale*.—*Ibid*.

IMPROVED METHOD OF SUPPORTING THE KNAPSACK. BY AN ARMY SURGEON.—We have been shown an ingenious, and at the same time an extremely

simple contrivance for supporting the knapsack and relieving the shoulders and chest. It consists in a *sash* attached to the belt, and pressing by a broad surface against the back. By means of it, the knapsack is supported by the hips and loins, and the weight is distributed over the largest possible surface, and placed in the position most easy and endurable for the soldier. The sash is made so that it can be dropped, and the knapsack is then carried by the shoulders alone as at present. In this manner, the different sets of muscles and the different points of support are alternately relieved. This contrivance is, in our opinion, one of immense advantage to the soldier, and will do a vast deal to lessen the disastrous effects of long marches. It will be of special value in cases where men are obliged to fight with knapsacks on, as it will relieve the shoulders, chest and arms, and take away the temptation and the necessity of throwing their knapsacks away. Each shifting of the load will be worth to the soldier at least half an hour's rest.—*American Med. Times.*

WE take pleasure in stating that Samuel D. Crawford, M.D., the heroic surgeon of Fort Sumter, has been appointed a major in the regular army. On the occasion of the bombardment of that fort, he performed the part of a commandant of a portion of the ordnance, and exhibited great bravery. On his arrival in New York, Dr. Crawford became an active and most efficient agent in organizations for supplying needful hospital supplies to meet the apparent emergency: government has but justly rewarded true merit. We understand that Dr. Crawford left the medical staff with much reluctance and regret. He has been ordered to report to Gen. Rosencranz, in Western Virginia.—*Ibid.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, September 14th, 1861.

DEATHS.

	Males.	Females	Total
Deaths during the week,	42	52	94
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	50.9	52.6	103.5
Average corrected to increased population, . . . . .	..	..	115.4
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
16	20	1	1	1	0	4	3	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.144	Highest point of Thermometer,	76.0
Highest point of Barometer,	30.378	Lowest point of Thermometer,	45.0
Lowest point of Barometer,	29.714	General direction of Wind,	W.N.W.
Mean Temperature,	60.5	Am't of Rain (in inches)	1.27

NOTICE.—We are requested to announce that Vol. XXIII. of the Library of Practical Medicine, published by order of the Mass. Med. Society for the use of its members, has been received at this office for distribution to those entitled to the same. It will be sent by mail on receipt of the postage—13 cents.

MARRIED.—In this city, 10th inst., Dr. Luther Parks, Jr., to Miss Kate Burroughs, daughter of the Rev. Henry Burroughs.—At Westfield, 10th inst., Dr. Anson P. Hooker, of East Cambridge, to Miss Rebecca P. Boice.

DIED.—August 9th, of dysentery, on board of the Flag Ship Colorado, off Fort Pickens, Charles H. Covel, M.D., late Resident Physician at Bellevue Hospital.

DEATHS IN BOSTON for the week ending Saturday noon, September 14th, 94. Males, 42—Females, 52.—Accident, 2—Inflammation of the bowels, 1—congestion of the brain, 2—Inflammation of the brain, 1—cancer, 2—cholera infantum, 20—consumption, 16—convulsions, 4—croup, 1—debility, 1—diarrhea, 4—dropsy, 1—dropsy of the brain, 5—dysentery, 4—erysipelas, 1—scarlet fever, 1—typhoid fever, 3—hemoptysis, 1—infantile disease, 4—intemperance, 1—disease of the kidneys, 2—disease of the liver, 2—Inflammation of the lungs, 1—marasmus, 1—prostatitis, 1—scalded, 2—scrofula, 1—spina bifida, 1—suicide, 1—syphilis, 2—unknown, 3—whooping cough, 2.

Under 5 years of age, 53—between 5 and 20 years, 9—between 20 and 40 years, 14—between 40 and 60 years, 6—above 60 years, 12. Born in the United States, 74—Ireland, 19—other places, 1.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 8.

DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

[Communicated for the Boston Medical and Surgical Journal.]

LECTURE VIII.

THE subject of ensuring a sufficient evacuation of the bowels has already been incidentally adverted to, and its importance enforced, especially in acute diseases. I propose now to speak more generally of this subject, and particularly of that condition so common, not only in disease, but among persons in ordinary health, viz., costiveness.

An insufficient natural movement of the bowels is their prevalent condition in most diseases, both acute and chronic, and attention to this condition with a view to its proper regulation is one of the precautions to be constantly, we may say daily, kept before us. Neglect of it, whilst it does not often directly and sensibly interfere with recovery from either acute or chronic diseases, especially the former, at least obviously, produces much discomfort and is the source of many annoyances. Still, it does not follow that in all stages and states of disease, an open state of the bowels is to be pertinaciously insisted upon. Some exceptions have already been pointed out. During the early periods of acute cases, where sufficient evacuation has taken place at their beginning, they can be more safely left for some time without any discharge than in the later, particularly when the suspension of digestion has been most complete, and the patient has taken only liquids containing little solid matter.

In the later periods, and during convalescence, after food has been taken of a more substantial kind, it may happen that although it is relished, and nourishes the patient, yet it is quite incompletely digested and transmits to the bowels a residuum which is capable of producing irritation. The effect of this differs much in different persons. In some there is a great insensibility, in others a great sensibility to causes of this kind; in the latter, slight ones will produce very considerable disturbance. This disturbance is more frequently indicated by the general condition of the patient than by local symptoms in the bowels themselves. For instance,

after relishing very well and feeling refreshed by a morning and mid-day meal, he will experience in the evening or beginning of the night, a general sense of uneasiness, dryness of the mouth, feverishness, a quickened pulse, headache, restlessness and incapacity to sleep. These may be so considerable as to excite fears of a relapse or of some new attack, and yet they will be often entirely dispelled by procuring an evacuation from an enema. This is noticed in the most marked manner in children; but, both in adults and children, whenever these or other irregular symptoms arise, not proper to the stage of their complaint or to their state in other respects, this cause is to be suspected, and no other measure to be adopted till this has been tried.

But there are circumstances under which the general rule of keeping the bowels open during disease is liable to misconstruction and misapplication. It is sometimes taken as an indispensable condition that a discharge should be procured every day, or every other day, without exception. Injury may be the result. In many persons all artificial attempts to procure discharges are attended with irritation; and in some diseases, especially where the canal itself has been the seat, efforts of this kind are resented and resisted. It is much safer, when there is an indication of this kind, to abstain from interference, and trust to time and a careful management of the ingesta.

There is another danger, of a different description. From a disposition to carry out the rule rigidly that we are never to keep the bowels open by medicine when we can do it by food—a rule of inestimable value under its proper limitations—we are sometimes led to attempt this in acute diseases, when the stomach is incapable of acting properly upon such articles as are ordinarily suitable for this purpose. The canal may be more irritated by their presence, than even by medicine. Thus, in typhoid fever, and, indeed, in most acute diseases, a small dose of castor oil will be much better borne than a meal of rye pudding or wheat bran. Even in the costiveness of people in ordinary health this may prove true.

But positive costiveness, both as an accompaniment of chronic diseases or as the habitual state of many persons in their ordinary health, is one of the most frequent conditions which we are called upon to encounter, and one of the most difficult to treat satisfactorily. It is, in the first place, important to observe that the same degree of costiveness does not call for the same urgent effort for its removal in all constitutions. The disposition to it and the extent to which it interferes with the health and comfort differ very much in different individuals. There are those in whom any departure from the regular daily habit is attended by some obvious derangement, indicated by headache, indigestion, and a sense of general uneasiness, whilst there are others who are able to pass many days without noticing any effect, and whose ordinary health

is not disturbed even by the habit of having a discharge but once in three or four, or even more days. In these, this slowness of the bowels seems to have become their normal condition, and continues perhaps for years without any particular ill consequences. Some of them survive to the usual period of life without any marked difference between them and others. Mere costiveness is probably a less evil, and productive of less evil, than is ordinarily imagined. Still, it is an evil, and also often productive of evil, but may do less injury than the means used to obviate it; especially the frequent taking of strongly operative medicines. The attempt should certainly be made to remove it, but this cannot always be done. Where it cannot, after a fair attempt has been made, and the system settles down into a regular habit of an evacuation once in a few days without any obvious ill consequence, it is better to submit to the evil quietly than to take the risk of impairing the healthy state of the organs by a constant interference.

But there are many who really do suffer from this habitual slowness of the bowels, and also many—perhaps quite as many—who think they suffer, or who think they shall suffer, if this state of things is permitted to continue, and for these we are constantly called upon to direct.

Costiveness is induced by various causes—such as resisting slight calls to the natural evacuation from inconvenience as to time and place—breaking up a regular habit from accidental interruption—sedentary and in-door occupations—unsuitable food, &c. Women are more liable to it than men, and inhabitants of the city than of the country. It is often induced, temporarily at least, by any considerable change in the regular course of life, such as a journey, a voyage by sea, an alteration in the hours of our meals, &c. &c., and the avoidance of these occasions is of course to be enforced as the best means of removing the difficulty, but this is not always possible, and where the habit of costiveness has been once formed they are seldom sufficient.

With some persons some very simple expedient is found adequate—not indeed to the removal of the habit—but to the prevention of its consequences, such as the daily introduction into the rectum of a bougie, which acts wholly mechanically, or of some slightly stimulating suppository, as a piece of soap or of candy, whilst others succeed by the use of an enema of cold or warm water, or molasses and water, or salt and water. Again, others are relieved by drinking a tumblerful of cold water on rising, swallowing a raw egg, a quantity of clear butter, or of sweet oil.

Still, few persons are disposed to persevere in this way, and a better method is to regulate the diet by laxative food. When this is effectual, it is undoubtedly preferable to all others. The term laxative, as applied to food, is not, however, perfectly definite. What is laxative in one person is not necessarily so in another. Usually vegetable food, especially the subacid fruits, is more laxa-

tive than animal, but there are a few persons who are more costive under the use of the former than the latter. As a general rule, those kinds of food which contain a considerable quantity of an indigestible residue are most to be depended on, and their power is partly due to the bulk thus given to the fæces. Thus costive persons find their account in the use of bread made of flour from which the bran has not been entirely sifted; and probably much of the costiveness found to exist among the more comfortable classes of society, is due to their almost exclusive use of the finest flour. One of the grains—rye—seems to have beyond this an absolutely laxative power, and its use, even when finely sifted, is in many persons quite sufficient for the purpose.

Upon the whole, the articles of food that are found most certainly efficacious are, wheat finely broken, but not ground, known under the name of "cracked wheat"; wheat bran, eaten separately, in the quantity of two or three ounces daily; the common rye and Indian bread, known in New England as "brown bread," and barley or oat-meal bread; or any of these grains taken in the form of hasty pudding, mush, or stir-about. By the habitual use of one or other of these, a majority of persons can keep the bowels in a sufficiently soluble state, who will persevere with them in sufficient quantity and for a sufficient time, but in this they are apt to fail.

Other articles, not nutritious, are sometimes found efficacious; such is the white mustard seed, taken in the quantity of three or four teaspoonfuls every day, or powdered charcoal in the same quantity. Probably their efficacy depends upon their influence as foreign or indigestible substances. An objection is sometimes made to articles not capable of digestion, on the ground that all such substances must be necessarily injurious. This fear, however, has no foundation. A substance present in the alimentary canal is not injurious merely because it acts there as a foreign substance and not capable of being dissolved, unless from its bulk or some positively irritating quality. On the contrary, the presence among the fæces of a considerable proportion of such material aids in promoting the due action of the canal.

Still, no attention to the character of the diet, especially when this attention is irregular and unequal, as is apt to be the case, is sufficient in all cases; and in many it becomes necessary to depend upon medicine. When this is employed for this purpose only, the aim should be so to administer it as never to act as a cathartic, but to produce, as nearly as possible, a natural discharge. This is to be effected by giving it in such quantities and at such times as will impart to the whole bulk of the fæces a quality that will ensure their discharge by the natural action of the intestine. A single dose administered with, or in the near neighborhood of, some one of the meals is often sufficient, and the evening is the best time, because its operation falls in with a tendency to

a natural operation in the morning. In many persons this does not answer, and if a dose large enough to act at all is given, its operation partakes of the character of a cathartic. In such cases a smaller dose given at two or three of the meals in the day will succeed better. The article selected is of less consequence than the mode of giving it; but no method I have ever employed for the use of persons so persistently costive as to be obliged to depend upon medicine for its relief, has been so satisfactory as the combination of a large number of cathartic substances in small quantities in a single prescription, as in the specimen inserted below.*

This method may be often pursued for years, without any necessity for an increase in the quantity, though this is not always the case, nor have I ever found that any evil has arisen from such continuance. Undoubtedly, the large and habitual introduction of any medicinal substances into the stomach is to be avoided if possible, and no person should yield himself to such a habit when the end can be attained in any other way. Still, when we consider the constant errors of diet as to quantity and quality, of which most persons are daily guilty, and also their constant offences against the laws of health in other respects, it is not too much to say that very few of us pass a day of our lives without some indulgence which is far more injurious than taking into the stomach a small quantity of medicine. I believe that the daily eating of newly-baked bread and butter, hot buttered toast, pastry and confectionary, short cakes, rich soups and gravies, and puddings, might with very many individuals be advantageously exchanged for a few grains of aloes or rhubarb.

When the bowels have lost their susceptibility to a laxative diet, and medicines have been resorted to for costiveness, it will often happen that this susceptibility will return after a time, and medicine may be discontinued. This desirable change will be promoted if, during the use of medicine, the patient discontinue the use of laxative food. This is not usually done, but he perseveres in it with the idea that thus a less quantity of medicine will be required. This may be so, but it is likely to prevent the return of the natural susceptibility. When the patient depends upon medicine at all, it is best to depend upon it entirely. It is even better to adopt a diet which is rather constipating in its character, as by this means after a time the return to the use of laxative food is more likely to be effectual.

Spontaneously the tendency to costiveness will sometimes subside. It is often observed, after a long or severe fit of sickness, that the natural power of the bowels is restored, as indeed the relation of the digestive organs to the food is not infrequently

* The following combination I have now used for nearly forty years, and in a very large number of cases, and have rarely found occasion to be dissatisfied with its effect:—R. Aloes, one scruple; jalap and rhubarb, scammony, each sixteen grains; gamboge, five grains; tartrate of antimony, one grain; croton oil, one drop. Mix in 64 pills. Of these pills one taken during or directly after a meal, once, twice or three times a day, will rarely operate medicinally, and will usually produce a natural faecal discharge.

changed in other respects. A change of place, of climate, of occupation or of other habits, may be attended by the same result. Sometimes, without any obvious cause, as life advances, a change takes place in this respect, and those who have been costive during its early periods acquire a habit of regular evacuation. More commonly, however, the tendency to costiveness is greater in the old than the young, whilst the evils from it are certainly less.

It cannot be too strongly impressed upon those who suffer from this infirmity, that the worst method of dealing with it is to permit several days to elapse without a movement, and then to procure one by taking a full dose, which shall operate as a cathartic, of such articles as jalap, senna, bilious pills, or even aloes and rhubarb. In this case the patient suffers in some degree the evil of the cathartic without the real benefit of an open state of the bowels; whilst the frequent use of such doses tends strongly to undermine the powers of the digestive organs.

In many, perhaps most costive persons, any measures they may employ which prove successful at first, fail of their effect after a time. This is probably due to the same disposition which originally renders the intestine insensible to the natural stimulus of the fæces. In this case the method should be changed, and by passing from one expedient to another as each is successively found to fail—e. g., from diet to enemata, from enemata to medicine, and from one kind of medicine to another—the purpose will be accomplished. It is worthy of remark that the exhaustion of susceptibility to one method is not generally accompanied by a loss of susceptibility to the others, and that after suspending for a sufficient time any one method of treatment which has become inefficacious, a return to it will be successful. This is especially the case where the stronger purgatives have not been employed in cathartic doses. Actual purging disturbs more permanently the natural state of the intestine in this respect, than any continuance of medicines given in the way which has been suggested.

In the employment of enemata for the treatment of costiveness, the mildest should be employed which will answer the purpose. Mere water is the best, and by increasing the quantity gradually from a half pint to a quart, serves for a long period. As it fails, its efficacy may be renewed by the addition of any mild stimulant, such as common salt, soap, molasses, or any of the operative neutral salts. Usually the operation of enemata is unattended by any unpleasant effects, and may safely be continued as long as they answer the intended purpose. But there are exceptions to this. Some persons are always unfavorably affected by them, especially when they are large in quantity, or when it becomes necessary to use anything stronger than water or some mild fluid, like gruel or starch. The excitement of the mucous surface of the intestine, its mere distension or its muscular contraction in this unusually distended state, are followed by pain in the back and sacral re-

gion, by a sense of great weakness and exhaustion in the whole lower part of the abdomen, and even by faintness, which continues for some time and renders the recumbent posture necessary. This is more observable in women than in men, and particularly in women laboring under exhausting affections of the womb.

While on the subject of enemata, it may be well to add that when used to aid the operation of an insufficient cathartic, or to produce a cathartic effect themselves when the state of the stomach or any other circumstance renders the introduction of medicine into the stomach inexpedient, the use of an enema of decidedly purgative powers has often an excellent effect. For this purpose, none is so certain or so thorough as a watery solution of aloes; from twenty to forty grains given in this way seldom fails to act speedily and effectually.

[To be continued.]

CASE OF POISONING BY ACONITE—SUCCESSFUL USE OF NUX
VOMICA AS AN ANTIDOTE.

[Communicated for the Boston Medical and Surgical Journal.]

APRIL 19th, 1861, I was called to see a colored boy, 5 years of age, a son of Mr. Lewis, Pine St., this city, who had taken, as I subsequently learned, a preparation of the tincture of aconite and simple syrup, a mixture I had some time previously prescribed for a member of the family. He was seen with the bottle, "tasting" it; how much had really been taken could not be definitely ascertained, but, from his condition, it was manifest he had swallowed a destructive dose. The first intimation that anything was wrong was given about an hour and a half before I saw him, when he complained of his throat, walked unsteadily, and articulated with difficulty. I found him comatose, the eyes half closed, expressionless, the pupils insensible to light, though not much dilated. The pulse was feeble and irregular, respiration requiring artificial aid to support it, and the muscles and ligaments so much relaxed that he could neither stand up nor sit unless supported. His respiration finally degenerated to a gasp, occurring five or six times the minute, then he would convulsively straighten out in the lap of his attendant, throw his head and shoulders back, and his hands over his head, as if, mechanically, to get a longer and fuller inspiration, then relax into the same state as before.

No time was lost in getting his feet into hot water, sinapisms on the soles of the feet, calves, and over the abdomen and chest. I failed in my attempts to get an emetic dose of mustard into the stomach, from its bulk and difficult deglutition. Ipecac and antimony being the least bulky of anything at hand, I forced down a double dose; soon after I irritated the fauces with a feather. Fifteen minutes passing, and no signs of vomiting having appeared, I repeated the dose, and irritated the throat as before. No retching occurred

from this at the expiration of half an hour from the first dose, the respiration grew more difficult, and the pulse became imperceptible at the wrist. He was sinking, evidently, and the emetics were aiding the poison instead of the patient, as the muscular fibres of the stomach were rendered insensible to expulsive stimuli by the depressing influence of the poison, and the difficult respiration and deglutition were referable to the operation of the same cause upon the diaphragm and pharynx. The case now appeared desperate, unless these tissues could be excited, and nux vomica was manifestly capable of producing this effect, as its full therapeutic action was the exact opposite of that now dominant from the poison. Impressed with this idea, I gave him three drops of the tincture of nux vomica; I then placed my finger upon the wrist and awaited the result. My pleasure can be well imagined when, in a few minutes, I felt the heart's impulse returning with accelerated vigor as the tincture became more and more absorbed, and the respirations were correspondingly improved in steadiness and depth. At the end of twenty minutes I repeated the dose, soon after tickling the fauces with the feather. Retching was soon induced, and vigorous emesis followed. After this operation, young ebony opened his eyes, and after satisfying himself that matters were progressing circumspectly, he coolly lay back in the lap of his attendant, with a quiet and steady respiration and pulse. I remained half an hour longer, when I considered him safe, and left him, with directions to take three drops once in three hours during the night, allowing him to sleep during the intervals if the breathing continued regular. The next day I found him sitting in a chair, and apparently fully recovered, having rested well during the night, and taken light nourishment during the day. I left him two drop doses of the tincture for meal times during three days, to ensure perfect tone of the muscles.

As corollary to this, I think it may be said that nux vomica is a complete antidote to aconite, and, conversely, that aconite is equally an antidote to nux vomica. No doubt the nux vomica would have been equally as prompt in this case when I first saw it as when I gave it. Nor is it unworthy of thought that the antidotal powers of nux vomica may extend with equal force to the whole family of acro-narcotic and narcotic poisons. There can be no doubt that aconite, belladonna, digitalis, conium, hyoseyamus, stramonium, as well as opium, tobacco and prussic acid, act directly upon the nerves and muscles of organic life through the brain, paralyzing them more or less completely as their toxic powers are developed, and that the stimulus excited by nux vomica upon the spinal cord, and reflexed through the sympathetic ganglia, could not be expected to do less than to revive and maintain these suspended functions more or less perfectly, until the brain recovers from the effects of the poison.

Hartford, Sept. 11th, 1860.

D. D. HANSON.

ACTION OF OPIUM ON THE GENITO-URINARY ORGANS.

BY B. WOODWARD, M.D., GALESBURG, ILL.

THOUGH opium has been known as a therapeutic agent from the earliest ages, it is not yet fully understood; and as the relations of pathology and therapeutics are being studied, new forms of its action are being developed. Almost all writers on *Materia Medica* unite in saying that "opium arrests all the secretions except those of the skin." This is the general belief; and I had taken it for granted, till about three years ago, when an accident made me doubt the assertion, so far as the urine was concerned, and subsequent experience has convinced me, that under certain circumstances, instead of arresting, it increases this secretion in a remarkable manner. Having occasion to take a dose of morphia, I was struck with the largely increased urinary secretion, and its clear, limpid character. In order to test the matter, I next day measured all the urine passed in twenty-four hours, and proved it to be twenty-eight ounces; specific gravity, 1014. The next day after urinating, on rising from bed, I ate and drank as usual, and took a third of a grain of sulphate of morphia, at 7, 10, 1 and 4 o'clock, and measured all the urine passed at 9, P.M., and found it to be forty-five ounces, very limpid; specific gravity, 1003. This experiment was repeated carefully four times, at intervals of five days, and each time proved a corresponding increase in quantity, and lowering of specific gravity. Since that time I have several times repeated the experiment, and always with the same results. Lest this should be the result of some idiosyncrasy, I subjected five young men to the experiment, and with four of them obtained a very large increase, and lower specific gravity. With one of them, on two trials, I found no perceptible increase or diminution of the quantity, but a marked lessening of specific gravity. It is proper to say, that I have not obtained the same results with opium itself, as with its alkaloids, but there has been no difference, whether the muriate or sulphate of morphia were used. Acting on these hints, I have repeatedly used morphia in irritable conditions of the nervous system where a diuretic was required, and have always been pleased with the results. These are the class of cases requiring a sedative action, and in which *veratrum viride* acts on the kidneys. Opium, then, appears to be a sedative diuretic, causing an increased secretion from the kidneys, by its relaxing properties. I think it will be found that in many cases of disease, the urinary secretion is arrested by the state of nervous tension which has been superinduced, and that instead of a resort to stimulant diuretics, sedatives will relax the tension, and allow the secretion to be restored. This sedative action must be brought about by such agents as shall act on and through the nervous system, and not those which act on the blood (e. g., calomel and antimony). There is a vital difference between sedation of the nervous system and

depression. Depression is often caused by nervous irritation, which wears out the powers, and which is successfully combated by sedatives, which allay the irritation and give the system a chance to recuperate. Whether by the use of opium the solid contents of the urine are increased, could only be determined by an analysis of all passed in a given time; but the evidence of my own is, that they are not. Where there is evidence of a poisoning of the system by the retention of excrementitious matter which should be eliminated by the kidneys, I have found the better plan to be to combine morphia with a saline diuretic. Retention of excrementitious matters produces nervous irritation, and this leads to true depression.

Another marked action of opium is as an anaphrodisiac. For obvious reasons it is difficult to settle this satisfactorily; but in the cases of several women whom I knew to be opium eaters, inquiry of the husbands has elicited the fact that in them the sexual desire was almost extinct; and several men of whom I have inquired, who used much opium, have acknowledged the same to be true of them. This may account for the impunity, so far as health is concerned, with which Turks and other Asiatics, who all use much opium, keep large numbers of women in their harems. Their lives are spent in a dreamy voluptuousness, while, in fact, sexual appetite may not be largely indulged. The testimony of travellers is, that "large families of children are rare among the wealthy orientals who keep extensive harems." The testimony of a prostitute on this point was, that "she was obliged to use opium freely, so that she should be merely passive, while admitting men to her embrace, or she would have been worn out." I could give the cases of several men for whom I have prescribed opium, to enable them to overcome their lustful propensities, and always with benefit, as it held the desire in abeyance, and enabled them to bring their moral powers to bear. In the case of a most estimable woman, now dead, who, ten days after accouchement, became the victim of uncontrollable sexual desire, amounting almost to nymphomania, full doses of morphia by the mouth, and solutions of morphia to the parts, acted almost like a charm, and restored her to herself.

I conclude, then, that opium has a direct action on the nerves governing the urinary and generative organs.—*Chicago Medical Examiner.*

FURTHER EXPERIMENTS WITH KEROSOLENE.

IN the absence of a report from the Committee appointed at the July meeting of the Cook County Medical Society, to investigate the properties and actions of the new anæsthetic, kerosolene, it may be as well to put on record one or two of the experiments made with this agent on the lower animals, by the junior editor of the *Examiner*.

Expt. I.—A full-grown, healthy doe rabbit was subjected to the influence of the vapor, administered on a cotton cloth. After inhaling about two minutes, during which the respiration became hurried and convulsive, the animal screamed loudly and continuously for more than a minute, followed by violent struggling, which, at the end of the fifth minute (the inhalation meanwhile continued), gave place to rapid involuntary motion of the fore-legs. The animal was now laid on its side, and the inhalation suspended, but the involuntary motion of the fore-legs was continued, the posterior extremities lying relaxed. At the end of the eighth minute (the second of the intermission), the involuntary motions had given way to attempts to regain its feet; breathing natural, though a little hurried, and vapor again exhibited. The struggling was at once renewed, followed by strong clonic spasms of the extremities, varied by the rapid movements of the fore-paws, during which the hind-legs were rigidly extended; to this succeeded violent shivering of the whole body, respiration very quick and labored, eye-balls protruded. At the end of the twelfth minute, sensibility was yet perfect, the prick of a scalpel being instantly responded to. The animal now lying prone, the cloth was placed close under its nostrils, and two drachms of the fluid poured on, care being taken that it did not touch the nostrils. The irregular convulsive movements were again renewed, intermitting to fits of shivering, after one of which the trunk was flexed backwards (opisthotonos), extremities extended and respiration ceased. On opening the thorax, ten minutes afterwards, the right auricle was found immensely distended, and still strongly pulsating, pulmonary arteries congested, and the other usual symptoms of asphyxia. The inhalation was continued nearly fifteen minutes, with about two minutes intermission, and at no time was there any anæsthesia.

Expt. II.—A full-grown, young male rabbit was subjected to the vapor, by pouring half an ounce of the liquid into a common tumbler, into the upper part of which pussy's head was confined. For the first five minutes the phenomena were similar to those in the first experiment; but while struggling, his head was so far released as to allow him to lap up, probably, half a drachm of the fluid. Violent shivering fits at once supervened, followed by entire muscular relaxation, from which (the vapor being withdrawn), he recovered in four or five minutes, eating and running with perfect freedom. No anæsthesia.

Expt. III.—The same rabbit, one week afterwards, was again treated to the vapor from the tumbler. Phenomena almost identical with those of No. I., death occurring in about fourteen minutes, with no intermission of the supply of vapor. Post-mortem revealed the usual symptoms of asphyxia. The blood coagulated very slowly in both instances. Ten drachms of kerosolene were used in the first, and not quite an ounce in the last experiment. Anæsthesia was not produced in either case, at any time before death.—*Ibid.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

AUGUST 26th. *Diphtheria*.—Dr. W. E. TOWNSEND said he had lately under his care an old gentleman, 80 years of age, who had an attack of diarrhoea. Two days after his recovery from this, his tongue and fauces were entirely covered with a thick, pasty secretion. There was great prostration, and difficulty in swallowing. Under the use of chlorate of potash and wine, he rapidly recovered. Dr. T. considered the case one of diphtheria.¹

Dr. MORLAND said he had two cases of diphtheria about the same time as that described by Dr. Townsend. The patients were in one family. The first was a very delicate boy, about six years old. When first visited, the posterior fauces and the tonsils were covered with a thick lymph, looking like wash-leather, and the same was observed, on depressing the tongue, to extend downward upon the pharynx. The velum pendulum palati was swollen and œdematous. A diffused dark redness of the faucial mucous membrane was noticed around the patches of lymph. The constitutional affection was extreme; the little patient being greatly prostrated. There was cough, with expectoration of glairy mucus, at first. Subsequently, frequent and copious epistaxis occurred, with deadly pallor accompanying each accession. Vomiting occasionally took place, but was not severe.

The nitrate of silver was immediately and thoroughly applied around the patches; and the application renewed twenty-four hours later. The patches of lymph did not extend; but deep sloughs formed in each tonsil, and finally hung off from these glands, so that the dead portions were necessarily removed by dressing-forceps. There was at this period intense and nauseous fœtor, which could be at once perceived, on entering the room; and a degree of it had been noticed almost from the first. The mouth was carefully swabbed with a solution of chlorinated soda, and ice was freely administered to the child, with apparently excellent effect. It was taken with avidity. There was free bleeding from the sloughy tonsils. Externally, warm applications were made to the throat, which was very little swollen. Citrate of quinia and iron was largely given. The child—whose disease was nearly at its height when it was first seen by Dr. M., July 11th—was much better in four days; and at the end of a week no lymph and but little redness remained. There was, however, great weakness and anorexia. Beef-tea and wine-whey were given regularly and perseveringly through the entire course of the illness. The pulse was always weak and tremulous.

This boy, visited to-day, August 26th, seems nearly well. The throat is in a natural and healthy state, except that the velum is too long. Astringent gargles and tonics were ordered to be continued, and the patient was sent into the country.

One phenomenon was very marked in this patient, at the latter date, viz., indistinct utterance, and inability to pronounce certain common words; together with a degree of impaired deglutition. This state, which is referred to by authors, and ascribed to disordered innervation, is by Dr. Jenner (*On Diphtheria*) thought to be only occasional; Dr. Greenhow believes that few patients escape some such manifestations. Difficulty of deglutition is not uncommon, but that of articulation is

not particularly noted. Patients generally recover from the condition under the use of tonics, and with the return of their accustomed strength; but fatal results may follow, and the state may supervene several weeks after the original disease has ceased. When cardiac disturbance occurs, great danger is imminent.

The second patient was a sister of the boy whose case has been sketched. She was four years old, and very stout, ruddy and strong, but of phlegmatic temperament. She was attacked with true diphtheritic disease about the last of July, having been with her brother until Dr. M. was called, when the mother was told to keep her away from him. How effectual the separation was, is doubtful. The case seemed one of evident personal communication. There was less lymph upon the fauces, but far more swelling and redness of the tonsils, and of the throat generally, than in the boy. She was very much depressed in strength, and had a small and persistently weak pulse, with occasional vomiting and epistaxis; the latter not so profuse as in the other patient. The treatment was essentially the same as in the first case.

Drs. Williams and Page saw both patients at times; and the girl was for several days under the latter gentleman's care. On Tuesday, Aug. 6th, Dr. M. was hastily summoned, and found the patient *in articulo mortis*. She was lying on the bed, throwing herself about, evidently greatly distressed for breath. On taking her up and placing her in the nurse's arms, for the purpose of examining the throat, she gave a few gasps, and then quietly expired. The throat was enormously swelled and reddened, both within and without, and the epiglottis stood erect. All the parts seemed infiltrated with serum. Death doubtless occurred from apnoea, but the suffocative symptoms came on so suddenly, and were so promptly fatal, that no opportunity was afforded for opening the trachea. Dr. Page was present at the time of the child's death.

No *post-mortem* examination was allowed. No other persons in the house had actual diphtheria, but the mother, and a woman who assisted her, had troublesome sore throat.

Aug. 26th.—*Ventral Hernia.* Opening the entire length of the *Linea alba*. Case reported by Dr. ABBOT.

Mrs. R., an Irish woman, between thirty and forty years of age, applied for information whether she were pregnant or not. She had borne several children, and had supposed from her sensations and the enlargement of her abdomen that she must be near her confinement. She was puzzled, however, by the fact of her catamenia having been regular every month, and wished a professional decision on her case. On examining the abdomen, the first object which arrested attention was a central, prominent tumor, as large as a quart bowl, with the umbilicus on top, somewhat flaccid, quite resonant on percussion, and very sensitive to pressure. It could be easily moved more or less from side to side, and its contents seemed to be largely gaseous. On passing the hands over the abdomen on each side, the parietes had a firm, resistant feel, somewhat like that given to the hand by a distended uterus. Returning to the tumor once more, steady, equable pressure was made, to ascertain if there were a solid body below, or the aorta could be reached. Gradually the tumor receded until the aorta could be distinctly felt, and indeed grasped between the thumb and finger with the greatest ease. Drawing the fingers to one side, a rigid, sharply-defined edge

in the abdominal parietes was detected, and without much difficulty the ends of the fingers could be passed beneath, so that the thickened, firm edge of the right rectus muscle was readily grasped. The case was evidently one of ventral hernia. The muscle of the opposite side could be grasped in like manner, and the separation between them at the centre of the abdomen was from one and a half to two inches in width; the edges of the opening at this place were about three quarters of an inch in thickness. On tracing the edge of this fissure with the finger, it could be distinctly followed up to within half an inch of the ensiform cartilage and down to the pubes; the edge was perfectly defined and sharp. Of course the motion which had been attributed to a fœtus, was merely that of peristaltic action. The patient was advised to wear a bandage, to be adjusted by herself according to her own convenience. On a subsequent occasion, the condition of things was somewhat different, owing to a temporary difference of condition in the abdominal contents. At this time there was no marked central prominence, and the abdominal walls were flaccid, and for a moment there was a question as to the correctness of the former diagnosis. The aorta could be felt, however, very easily, and towards the iliac region a clearly-defined edge was easily made out; still it was not until after a somewhat careful manipulation that the opening could be traced as before, but it was at last accomplished; its width in the middle abdomen, was now at least four inches. The intestines were not distended, and did not protrude at all. On the patient's making an effort to sit up, however, the muscles at once contracted, narrowing the opening, and forcing up a regular oval tumor through it. There really seemed to be nothing between the finger and the cavity of the abdomen, throughout the extent of the median line, but the skin. The patient could give no history of the present condition of the parts. She had borne several children without special inconvenience, and two years since miscarried at the fifth month without any known cause unless it were the carrying heavy tubs of water up and down stairs. Her attention was first called to her present condition in February last, but she attributed her sensations to pregnancy. She has at the present time passed her catamenial period two weeks, and if she should prove to be pregnant, her case will be watched with much interest.

Bibliographical Notices.

A Manual of Operative Surgery on the Dead Body. By THOMAS SMITH, F.R.C.S., Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital; Surgeon to the Great Northern Hospital. London. 1859.

THIS little book has had two years' existence; still, as it is to a great extent unknown in this neighborhood, and is, moreover, a work which would be of great service in the study of operative surgery, not only on the dead, but also on the living body, it deserves notice from us. The facilities for practical anatomy, which the enlightened condition of the community of the present day permits, render not merely dissections, but practical surgery on the subject a desideratum easily to be obtained; while the advance in the science of surgery, as shown by new discoveries and new methods, demands a more com-

plete and ready knowledge of the subject than mere books and lectures can give. It is, then, to present to the student in the dissecting room, as well as to the operative surgeon, of whatever standing, a vade mecum, while performing operations on the subject, that this manual is offered; "to give to students a practical guide to the performance of operations on the dead body, and to lighten the labors of teachers, by enabling them to dispense with much oral instruction, and to substitute the same kind of supervision that is ordinarily exercised in the study of practical anatomy." At the same time, the author does not give an entire treatise on operative surgery; for instance, he fails entirely to speak of hernia and dislocations; but, as he says in his preface, "only those operative measures are treated of which can be advantageously performed on the dead body." What he *does* give, however, is so valuable, so clearly presented, and so forcibly impressed upon the mind, as to force the conviction that the work should be more fully known than it is at present. The book is clearly and beautifully illustrated from photographs of actual operations. If for no other reason, the book is worth its price merely for the illustration on page 95, representing that point, so difficult of comprehension to many, the division of the ligaments at the base of the second metatarsal bone in Lisfranc's amputation. The titles of some of the chapters will show the scope of the book. After speaking, in Chapters I. and II., of the selection of a subject and some minor operations—among which latter, however, he includes the operations for removal of the eyeball and artificial anus—he devotes Chapter III. to tenotomy; IV. to ligature of arteries; V. to median operations [including tracheotomy, laryngotomy, pharyngotomy and lithotomy]; VI. to amputations of the upper extremities and removal of the breast; VII. to amputations of the lower extremities and penis, and castration; VIII. to resection of entire bones and joints; and IX. to trephining and the stomach pump. Altogether, the work is one of much value, and should be in the hands of every practitioner—if for no other reason, for its use in every-day practical surgery.

Army Medical Intelligence.

MEDICAL STATISTICS AT FORTRESS MONROE, VA.—*Messrs. Editors*,—The reports of the medical officers of the Department of "South Eastern Virginia, &c." for the month of August, 1861, show a general improvement in the health of the troops. Fall fevers are increasing; other classes of disease show generally marked diminutions in the number of cases. The following are the figures:—

Sept. 1, 1861.—Strength of command—officers and enlisted men, 7,361. Remaining on last report of regiments reported here, 480. Taken sick during the month of August, 2,847. Sent to the General Hospital, Fortress Monroe, 54. On furlough, 12. Discharged on Surgeon's certificate, 77. Deserted, 1. Died, 7. Returned to duty, 2,734. Remaining sick, 197. Convalescent, 245.

The causes of death were:—enteritis, 1; typhoid fever, 2; common continued fever, 1; gastritis, 1; cirrhosis, 1; casualty, 1. These include Lieut. E. S. Holbrook, Massachusetts Battalion; one sergeant from 2d N. Y. Vols.; one sergeant from 20th N. Y. Vols.; two pri-

vates from 1st N. Y. Vols. ; one private of 1st Vt. Vols. ; one private of 7th N. Y. Vols.

Classes of disease.—Fevers, 254. Diseases of organs connected with the digestive system, 1,146 ; of the respiratory system, 207 ; brain and nervous system, 108 ; urinary and genital organs and venereal affections, 113 ; fibrous and muscular structures, 226 ; abscesses and ulcers, 222 ; wounds and injuries, 202 ; diseases of the eye, 40.

Leading diseases :—Diarrhœa, 718. Rheumatism, acute and chronic, 209. Constipation, 212. Fevers—congestive, 33 ; common continued, 23 ; intermittent quot., 66 ; intermittent tertian, 50 ; remittent, 51 ; typhoides, 5 ; other fevers, 26. Rubeola, 1. Dyspepsia, 37. Colica, 28. Cholera morbus, 24. Gastritis, 30. Tonsillitis, 19. Bronchitis, 72. Phthisis pulmonalis, 5. Pneumonia, 4. Pleuritis, 11. Cephalalgia, 63. Ictus solis, 3. Syphilis, primitive, 7. Syphilis, consecutive, 23. Orchitis, 16. Gonorrhœa, 47. Abscessus, 44. Phlegmon, 80. Incised, contused and lacerated wounds, 90. Gun-shot wounds, 11. Contusio, 28. Debilitas, 34. Ophthalmia, 17 ; other diseases of the eye, 23.

The medical purveyor's office at this post is in good supply of drugs and medical stores ; there is also a good supply of several varieties of ambulances, or field hospital wagons.

Dr. R. B. McCay, of Pennsylvania, who has been acting here as a surgeon under contract, since June last, has just been commissioned as a brigade surgeon, and assigned to this division for duty.

CHARLES B. WHITE, *Asst. Surg. U. S. A.*

Fortress Monroe, Va., Sept. 17th, 1861.

We publish the following extracts from letters of Army correspondents :—

To the Surgeon General.

ARLINGTON, VA., NEAR FORT CORCORAN, }
September 16th, 1861. }

DEAR SIR,— * * * * * We started, if you recollect, on Wednesday noon from Boston, arrived in Washington at five minutes past 4 o'clock on Saturday morning, obtained a pass, and in the afternoon started for this camp, which is very pleasantly situated on the sides and tops of two hills, connecting so as to make the letter V. The hills and all the grounds about are covered with a white-oak growth, the trees running up nearly 100 feet. * * * * * I have 30 sick in quarters, and 10 in hospital, including one man wounded while doing picket duty, on Friday last. He was shot through the left arm, the ball passing into and through the chest, wounding the lung. General emphysema followed. I went over within three hundred yards of the rebels (about four miles from camp), in order to get the man. The picket men were scattered behind the trees. The rebels commenced firing shells. I remained while about one dozen were thrown around me. I told my ambulance driver to return a short distance, until we ascertained the whereabouts of the wounded man. He had been sent back into the woods, nearer the camp. The road for half a mile was parallel to the rebels. I was on my colt, and was told by the pickets who had hid behind the trees, that they were afraid the rebels would outflank me, if I remained any longer in that place. I put spurs to the animal, and let her run for the first half mile, which was in the direct course of the shells that were falling the whole

way. The next half mile was a faster run than I ever made before. After a while we all returned to quarters.

Yours with respect,

S. WATSON DREW,
Surgeon of 9th Regiment.

To the Surgeon General.

CAMP UNION, SEPT. 12TH, 1861.

*DEAR SIR,—I arrived here on Saturday last, and reported to Dr. Bell. I find very little severe sickness, but a good deal of diarrhœa, and a kind of malarial fever attended with slight chills and followed by moderate febrile exacerbations. There are now 18 patients in the hospital, and between 30 and 40 outside patients are prescribed for daily. The care of the hospital and all the other patients has fallen to me.

Yours, &c.

IRA RUSSELL,
Surgeon of 11th Regiment.

Surgeon Baxter, of the 12th Regiment, reports, under date of Darnestown, Md., Sept. 14th, as follows:—"The 12th Regiment, Mass. Volunteers, has not seen a healthier time, since its organization, than during the past week. At present, and in fact for the past seven days, I have had *two* patients only in hospital, and ten excused from duty on account of little accidents, such as sore feet, and some little attack of diarrhœa. The 13th Regiment, Mass. Volunteers, encamped near us, have twenty-five in hospital. I don't mention this fact, however, to depreciate in any way the medical department of that Regiment, for they are well taken care of by skilful surgeons. * *

* * * I have entire medical charge of the Division supply train, consisting of three hundred wagons, in addition to my own regiment; this keeps me quite busy."

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 26, 1861.

For many years the school of infinitesimal medicine has been gradually losing the confidence which for a time it seemed to inspire as well in this country as in Europe, and there are now indications of an unmistakable character, that its last strongholds are about to yield to the pressure of a more healthy public sentiment; and that at no very remote period it will be remembered only in connection with those kindred delusions which serve to give so painful an interest to the history of medicine. When we remember the feeble origin of homœopathy, we are amazed at the rapidity and strength of its growth, which in a few short years has emboldened its advocates to assume for it a place beside our ancient faith, and to claim for it a like respect. Its high priests succeeded for a time in gaining the favor of the rich and great, and even crept into the presence of kings and emperors, and it almost seemed as if the dream of Hahnemann was destined to be verified, and that a new era had dawned in the annals of medical science. But the story, after all, will have been a brief one. Repudiated by those whom it had numbered among its most zealous friends and supporters, it has been driven from one place to another, until having sought refuge on these shores, far away from the smiling home of its

birth, it now tremblingly awaits the fate which is soon to overtake it. We have not been led to these remarks by the recent movements among its professed practitioners alone; there are signs in more than one quarter of the instability of the showy fabric which has attracted so many within its walls, and it requires no prophetic power to predict with a considerable degree of certainty, that the day of its doom is nigh at hand. Notwithstanding, however, the entire harmlessness of this now effete system, we are glad to see the interests of legitimate medicine beginning to be more carefully guarded against the inroads of quackery, by some form of which every community will always be liable to be infested. From the *Dublin Medical Press* we learn that at a meeting of the Council of the Royal College of Surgeons in Ireland, on August 2d, the following ordinance and resolution were finally adopted:—

“No fellow or licentiate of the College shall pretend or profess to cure diseases by the deception called homœopathy or the practices called mesmerism, or by any other form of quackery; neither shall they or any of them seek for business through the medium of advertisements, or by any other disreputable method. It is also hereby ordained that no fellow or licentiate of the college shall consult, meet, advise, direct, or assist any person engaged in such deceptions or practices, or in any system or practice considered derogatory or dishonorable by physicians and surgeons.”

The College of Physicians has adopted the following form of declaration to be taken by licentiates on admission:—

“I engage not to practise any system or method (so called) for the cure or alleviation of disease, of which the College has disapproved; nor to endeavor to obtain practice or to attract public notice by advertising, or by any other unworthy means. I also engage that I will neither permit nor sanction the use of my name by any other person for such purposes, nor in connection with any secret or other remedy; and in case of any doubt relative to the true meaning or application of this engagement, I promise to submit to the judgment of the College. And I solemnly and sincerely declare, that should I violate any of the conditions specified in this declaration, so long as I shall be either a licentiate or fellow of the College, I thereby render myself liable, and shall submit to censure of the College, pecuniary fine (not exceeding twenty pounds), or expulsion and surrendering of the diploma, whichever the President and Fellows of the College, or the majority of them, shall think proper to inflict.”

THE following case of ventral hernia, which has been placed in our hands by Dr. C. E. Buckingham, is of interest in connection with the one reported in the proceedings of the Society for Medical Improvement this week:—

Mrs. A., 22 years old. Supposes herself to be $7\frac{1}{2}$ months pregnant, during the first three of which she had incessant nausea and vomiting, the catamenial discharge continuing regularly. Slept well last night and till 8, A.M., to-day [June 2d, 1848]. Bladder and bowels apparently in good order. Two days since, while assisting in moving, “felt pain in the right side suddenly, with the giving way of something.” The recti muscles are very much separated. The membranes ruptured at $3\frac{1}{2}$ P.M. Pains every half hour, and not very severe. Pulse, at 4.30, P.M., 100; at 5, P.M., 88; at 5.15, 80; at 5.30, when full dilatation of the os uteri had taken place, 64 in the minute. During pains, it rose to 120. Presentation of vertex. From $4\frac{1}{2}$ P.M., to this time, pain every two or three minutes, but not strong. At 5.55, P.M., the head was born, followed by the body in a few minutes. The placenta came away at about $6\frac{1}{4}$ P.M. *After the labor*

was completed, I could pass my hand freely between the recti muscles and grasp the uterus. The child was a still male, $17\frac{3}{4}$ inches long, weighing $5\frac{1}{4}$ pounds. The pulse was not above 84 in the minute till the 5th, when the milk coming, it rose to 100. A moderate cathartic produced twenty-four dejections in as many hours, and it was checked by an opiate. There was no flowing of consequence till the 8th, when she got a few grains of secale cornutum, after which it stopped. The ergot was continued in six-grain doses till the morning of the 12th. I know nothing of her history afterwards.

FRACTURE APPARATUS. *Messrs. Editors*,—If Dr. Cotting will look into the *American Journal of the Medical Sciences*, No. 74, for April, 1859, he will see notice of a splint which was exhibited to the Fellows of the Mass. Medical Society, at its Annual Meeting in May, 1858, which has some features superior to his, described in the last number of this JOURNAL, and which was considered by Prof. Hamilton of sufficient merit to be copied into his work on Fractures and Dislocations.

A. CHAPIN.

CONSULTATIONS WITH HOMŒOPATHISTS. *Messrs. Editors*,—If Mr. Fergusson incurs just censure (see *Boston Med. and Surg. Journal*, page 127), what is to be said of those hereabouts, who accept office and have their names placarded, year after year, on Boards of "Consulting Physicians," with notorious homœopathists? "The stool of repentance" is ready—Gentlemen, please be seated.

* * *

In the *San Francisco Medical Press* for July, the editor, Prof. E. S. Cooper, advances the following propositions in surgery, and invites criticism or proof against them:—

"1st. That the atmosphere, admitted into the joints or other tissues, is not a source of irritation or injury, except where it acts mechanically, as, when admitted into a vein, by producing asphyxia; into the thoracic cavity, by its pressure producing collapsing of the lungs, or when, by the long-continued exposure of a large amount of surface of any of the internal organs, whose normal temperature is much above that of the atmosphere, it reduces it so as to produce morbid action.

"2d. That the division of entire ligaments about the joints is no impediment to their ultimate strength and mobility; but, on the other hand, this operation will often greatly facilitate the cure, by enabling the surgeon to open the affected part fully, for the purpose of applying medicinal substances to the articular surfaces, when these are ulcerated or otherwise diseased.

"3d. That the only true method of treating ulcerations of bone, however slight, within the joint, is to lay it open freely, and apply remedial agents directly to the part affected.

"4th. That opening the joints early, in case of matter burrowing in them, is far more imperiously demanded than the opening of other parts thus affected, and the operation produces no further pain or inconvenience to the patient, in any respect, than when performed on parts remote from the joints.

"5th. That after opening a large joint, the knee, for instance, by an incision several inches long, the wound should be kept open by the introduction of lint, or other similar substance, until the parts within the articulation become healthy, and, in all cases, it should be made to heal by granulation.

"6th. That extensive wounds, opening freely the large joints, such as the knee (even when lacerated, as by a saw, which must necessarily heal by granulation), do not as often give rise to violent symptoms as very small wounds, such as are made by the corner of a hatchet, an adze, or a pen-knife, which heal on the outside by first intention.

"7th. That there are no known limits beyond which a tendon will not or cannot be re-produced after division, provided the parts are made to heal by granulation, and that the present acknowledged rule of two inches being the maximum distance to which the divided ends of a ligament or tendon can safely be separated, has not the least foundation in fact."

THE Sanitary Commission continues to labor with great energy to extend sanitary reforms among the troops, and with great success. At a recent meeting, it added to its force the following Assistant Secretaries:—Drs. J. T. Newberry, J. H. Douglas, and J. Foster Jenkins. These are excellent appointments. Dr. Newberry is one of the members of the Commission. Dr. Douglas is well known to the profession as the able editor of the *American Medical Monthly*, and will bring to the discharge of his duties that knowledge of sanitary science, and that energy in the execution of the plans of the Commission, which are requisite to success. Dr. Jenkins, formerly of New York, but more recently a reputable practitioner of Yonkers, N. Y., enters the service thoroughly imbued with the spirit which should animate every agent of the Commission. The following distribution of the duty of the Assistant Secretaries has been made:—

To Dr. Newberry, the departments of Gen. Rosencranz, Gen. Fremont, and Gen. Anderson. Post-Office address, Cleveland, Ohio. Dr. Newberry will establish hospital depots at Wheeling, Va. (in charge of C. D. Griswold, M.D.), at Cincinnati (in charge of W. H. Mussey, M.D.), and at Quincy, Illinois.

To Dr. Douglas, the columns under Gen. Banks and Gen. Dix. Post-Office address, Baltimore, Md. Dr. Douglas will establish hospital depots at Baltimore and Frederick City.

To Dr. Jenkins, the columns under the immediate command of Gen. McLellan and Gen. Wool, with hospital depots at Washington and Fortress Monroe. Post-office address, Washington, D. C.—*American Medical Times*.

SURGICAL APPOINTMENT.—Surgeon A. B. Crosby, late of the 1st New Hampshire Regiment, has been appointed to the post of Brigade Surgeon.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, September 21st, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	52	38	90
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	43.7	43.7	87.4
Average corrected to increased population, . . . . .	..	..	97.6
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
15	11	0	1	3	0	2	3	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.032	Highest point of Thermometer,	80.0
Highest point of Barometer,	30.184	Lowest point of Thermometer,	47.0
Lowest point of Barometer,	29.878	General direction of Wind,	W.N.W.
Mean Temperature,	65.1	Am't of Rain (in inches)	0.00

PAMPHLETS RECEIVED.—Dr. Swinburne on the Treatment of Fractures of the Long Bones.

DIED,—In New York, Dr. D. Loring, formerly of Massachusetts.

DEATHS IN BOSTON for the week ending Saturday noon, September 21st, 90. Males, 52—Females, 38.—Abscess, 1—accident, 3—apoplexy, 2—congestion of the brain, 1—disease of the brain, 2—bronchitis, 1—cholera infantum, 11—cholera morbus, 2—consumption, 15—convulsions, 4—debility, 2—diarrhea, 2—dropsy of the brain, 5—drowned, 1—dysentery, 2—scarlet fever, 1—typhoid fever, 3—homicide, 1—infantile disease, 1—insanity, 1—intemperance, 1—inflammation of the lungs, 3—marasmus, 5—old age, 1—premature birth, 3—puerperal disease, 1—scrofula, 1—teething, 3—tumor (of the brain), 1—unknown, 6—whooping cough, 4.

Under 5 years of age, 50—between 5 and 20 years, 5—between 20 and 40 years, 15—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 71—Ireland, 11—other places, 6.

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DEATH FROM CORROSIVE SUBLIMATE.—WAS "BED-BUG POISON"
THE PREPARATION EMPLOYED ? *

[Read before the Boston Society for Medical Improvement, September 23d, 1861, and communicated for the Boston Medical and Surgical Journal.]

BY JAMES C. WHITE, M.D., BOSTON.

At the last meeting but one of the Society, Dr. Cabot exhibited the œsophagus and uterus of a female, who had died the same day, at the Massachusetts General Hospital, with symptoms of an irritant poison. The uterus contained two foetuses, neither of which was farther advanced than the fourth or sixth week. On the next day, Aug. 27th, the following articles were received, under seal, from Dr. W. E. Townsend, who conducted the *post-mortem* examination, under authority of Dr. Stedman, coroner:—1st. Portion of a liver. 2d. The stomach. 3d. The intestines, large and small. 4th. Some matter ejected from the stomach by vomiting, while in the hospital. 5th. Matter passed from the bowels during life.

The jar, in which the stomach was placed, contained besides that organ two ounces of an odorless, bloody fluid of the density of serum, and slightly acid to litmus. This was tested for free acids and for mercury, but it contained neither. The stomach itself had been opened along the larger curvature. Its inner surface presented the appearance of having been scorched in some places, varying from a reddish slate color to an almost perfect black, while other parts were of a bright or purplish red. The inner coat, where the color was deepest, was easily lacerated and torn up by the finger nail, and in other places seemed converted into a pulsataceous mass, resembling muddy mucus. A piece of litmus paper placed upon its interior gave a faintly acid re-action. The abdominal surface of the stomach had a natural appearance. One third of the organ was cut up into small pieces and thoroughly disorganized by means of hydrochloric acid and chlorate of potash. Hydrosulphuric acid threw down from this solution a black pre-

* The particulars of this case will be fully reported in the Transactions of the Society for Medical Improvement, in our next issue.

cipitate, which was reduced to metallic mercury. Another third of the stomach was treated according to the method of Flandin, that is, by caustic lime, and a part of the mercury thus abstracted is seen in the accompanying tube (vi. notches). Both processes yielded about the same amount of metallic mercury, from which it may be estimated that one eighth of a grain of corrosive sublimate was contained in the whole organ. Examination was made also for other metallic and the alkaloid poisons, but no trace of their presence was detected.

A careful analysis of the liver was made, but no mercury was found.

The intestines throughout their entire length showed signs of inflammatory action, with intervals of healthy tissue. In some parts, the mucous membrane was much reddened and very soft, and in others patches of the same dark color were observed, as in the stomach. They contained no other solid substance than disorganised tissue and a very little faecal matter. The fluid, in which they were lying, resembled the bloody discharges from the bowels contained in another vessel. An attempt was made to extract from a portion of it corrosive sublimate, by ether, but in vain, although the most delicate tests known were employed. The intestines themselves were not examined chemically.

The amount of vomited matter received was four fluid ounces; dark coffee color, odor of beer. Slightly acid by litmus. Some viscid matter floated upon its surface, which was found by the microscope to be disorganized tissue from the lining membrane of the stomach. A small portion was tested for the presence of mercury, and the metal thus abstracted is preserved in a tube. An attempt to abstract corrosive sublimate, as such, from the vomitus was made, but as in the case above mentioned none was obtained.

The quantity of the dejection received was one pint and a half. It was a faintly acid liquid, of a dull red color. At the bottom of the vessel was a deposit consisting of pulpy, disorganized tissue, mucus, and faecal matter. The quantity of metallic mercury extracted from eight ounces of this fluid was quite large. Corrosive sublimate, as such, however, could not be obtained from it.

From the results of the chemical analysis thus briefly stated, it will be seen that mercury in some form was present in considerable amount in the tissues of the stomach, and abundantly so in the matter rejected from that organ, and that which passed the intestines during life. Both the symptoms exhibited before and after the arrival of the deceased at the hospital, and the appearances revealed by the *post-mortem* examination, confirm the suspicion that death was caused by the action of some strongly corrosive and irritant poison. They were identical, in fact, with those generally produced upon the human system by corrosive sublimate when taken in large doses. Chemical analysis reveals the fact

that mercury had been taken in quantity sufficient to cause death, that it had been taken in some soluble and highly corrosive form, and that no other poisonous substance had assisted in its fatal work. It would seem a very easy matter, in a case like this, where the tissues are partially destroyed by the agent employed, and where the fluids passed subsequently to its exhibition are highly charged with it, to detect in them its true nature. Unfortunately, a chemist is seldom able to obtain so satisfactory a result when corrosive sublimate is given in solution. He can conclusively demonstrate the presence of mercury in the tissues and animal fluids, but beyond this it is generally a matter of inference. He may judge, too, whether the mercury has been taken in some soluble and corrosive form from the effects produced, and of this no case could be better illustrative than the present, and knows that but few of the mercurial salts possess these properties. He may also be able to satisfy himself that more chlorine is met with in the processes employed than is to be accounted for except by the supposition that it is combined with mercury in the form of a bichloride. Corrosive sublimate, when in solution, forms so intimate a union with the albuminous bodies it finds so abundant in the human economy, that it becomes, in fact, almost an impossibility to separate it from them, except by the use of re-agents so powerful as to decompose it, and thus render its detection a matter of uncertainty. That this stable compound of the bichloride and albumen does not yield up its mercurial salt to ether or alcohol by any means as easily as writers on toxicology state, is demonstrated by the present case, for the most delicate tests failed to give any satisfactory proofs of its presence in any of the matters examined, although there is not the slightest doubt that they all contained it in considerable amount. The symptoms exhibited during life, the *post mortem* appearances, and the results of the chemical analysis, all unite, then, to furnish proof positive that Ellen Dugan died from the effects of a large dose of corrosive sublimate.

The case, however, is one of far higher importance in a medico-legal aspect than the facts presented at the previous meeting seemed to express. Members of the Society may have seen in the *Boston Journal* of last Saturday (Sept. 21), a long communication headed "A Death-bed Confession," which, to one conversant with the particulars of this tragedy, seems very like the *exparte* plea of a lawyer, prepared for a jury, had the case ever come to trial. Inasmuch, however, as some knowledge of the *real* facts is essential to a proper understanding of the scientific evidence, which played so important a part in the disposal of this case, and as many of the gentlemen present may not have read the article referred to, I will state them in a few words, as they were developed at the coroner's inquest. The deceased, it appears, was taken

suddenly ill with alarming symptoms on Sunday night, Aug. 25th, at the house of her master in Jamaica Plain, where she had been living as a domestic for three years. Dr. Severns saw her there, and brought her the same night to the Mass. General Hospital. There was violent purging and vomiting both before and after her arrival there, together with other ordinary symptoms of poisoning by large doses of corrosive sublimate. She died at 10 o'clock on the following morning. According to the statement of the attending nurse, the patient was unaware of her dangerous condition, until she told her of it, and asked her what she had been taking. She then replied, that as she was about to die, she would tell her the whole truth:—That she was in the family way by her master, and had been taking some medicine he had given her for three weeks, but that as it had not produced the desired effect, and as her mistress was to return in a day or two, she had taken a larger dose, that she might be well before then. That she had been in the same way by him a year ago, and had got rid of the child at that time by similar medicine. She died shortly afterwards, fully in the possession of her senses. The body was taken possession of by the coroner, and the matters above referred to were placed in my hands for chemical examination. The result of my investigations was communicated to the coroner on the following day, and the person thus accused by the deceased was arrested on his authority, on the charge of attempting to produce abortion by corrosive sublimate. On the day following the committal, I received a note from the counsel of the accused requesting me to give a portion of the matters placed in my hands by the coroner, to Dr. Hayes for analysis. The same legal gentleman employed a detective also subsequently, to search the house at Jamaica Plain, who brought to Dr. Hayes a preserve jar containing vomitus, which had stood several days in an open vessel in the chamber of the deceased, and a bottle nearly empty, said to have been thrown into the garden by her, and to have been found there. It was a bottle which had held "bed-bug poison;" a nearly saturated solution of corrosive sublimate in alcohol, tinged yellow by turmeric.

Aug. 3d, I received both these bottles from Dr. Hayes, who informed me that he thought he had been able to detect in the vomitus some of the peculiar coloring matter of the bed-bug poison. It was upon this opinion, then, that the able counsel employed by the accused would found their defence, and the plea was raised that the girl died a suicide. The matter was brought before the grand jury of Norfolk County, and after a very hasty examination, the case was dismissed, and the person accused discharged. I do not propose to consider here the propriety of such a proceeding or the manner in which it was conducted, except in so far as the judgment of the district attorney was influenced by the scientific testimony presented to him. If we adopt the view stated by the

writer of the communication mentioned, who seems to have been intimately connected with the affair, it was chiefly upon this testimony that no bill of indictment was found.

I will say, in the first place, that I examined the bottle marked "poison," which contained about one drachm of a pale-yellow fluid, and a white deposit. It was found by analysis to be an alcoholic solution of bichloride of mercury, and the white deposit was the same substance probably left undissolved by the evaporation of the fluid. Some of this fluid, when evaporated with boracic acid, gave a red color to the edges of the deposit, and ammonia being added to another portion produced a white precipitate of mercury and a dull claret color. These reactions are indicative of the presence of turmeric. The fluid resembled, though paler, that contained in a bottle of the same character, full of liquid, which was procured by the male servant of the accused from the apothecary, who had furnished the empty bottle to the household some time previously for the purpose of destroying vermin. A portion of this latter, also given me by Dr. Hayes, to whom it had been delivered by the boy just mentioned, was treated by hydrosulphuric acid. The mercury was thus separated from the coloring matter, which by farther purification was found to possess the peculiar odor of turmeric, and was changed to a reddish-brown color on the addition of a solution of potash. It may be well to say here that turmeric owes its coloring properties chiefly to the presence of curcumin, a resinous substance which is readily soluble in ether and alcohol, but insoluble in water. It is recognized by imparting a red tint when evaporated with a solution of boracic acid, and by the change of its bright-yellow tint to reddish-brown when in contact with solutions of potash or soda. Ammonia produces a bright claret color.

About three ounces of what purported to be the vomitus of the deceased (taken from her chamber several days after her death), was received from Dr. Hayes. It resembled closely in appearance that delivered to me by the coroner, and described above. On examination, it was found to contain more mercury than the matter rejected at the Hospital, but the most careful analysis failed to detect any corrosive sublimate, as such, in it. This fluid was agitated with the same amount of pure ether, and allowed to stand thirty-six hours. The ethereal solution, clear and nearly colorless, was then poured off and evaporated. A small amount of yellow oily matter was thus obtained, which dissolved in alcohol, and yielded, on evaporation, a very slightly-colored fatty matter. Slips of bibulous paper were immersed in the alcoholic solution repeatedly, and dried. They were not colored yellow by this treatment, nor brown by subsequent soaking in alkaline solutions. A portion (one ounce) of the vomitus received from the coroner was then subjected to the same process. The golden-yellow oil thus obtained was treated with alcohol, and the solution concen-

trated to a small bulk, and taken up on small strips of filtering paper. The papers on drying assumed a bright-yellow tint, which did not become brown when moistened by solutions of potash or ammonia. Some of the alcoholic solution was evaporated to dryness with boracic acid, but no red color was produced.

Orfila, in his toxicology, refers to the production of this yellow oily matter in the course of the processes most generally employed in the analysis of the human stomach and other organs, and states that it is colored brown on the addition of alkalies. This change of tint, it will be remembered, is the characteristic reaction of turmeric, and might easily lead to error of judgment in a case like this. Moreover, there are many other coloring matters which undergo similar changes of color under the same circumstances besides turmeric, so that no one can state conclusively that a yellow coloring matter becoming reddish-brown on the addition of an alkali is turmeric. Curcumin is so easily soluble in ether and alcohol, that they could not fail to extract it when present. The ethereal solution of the vomitus received from Dr. Hayes, which, if we look upon it as entitled to judicial recognition, would be likely to contain a larger quantity of whatever drug was taken than that collected at the Hospital, was nearly colorless, but yielded, on evaporation, a slight amount of yellow oily matter, which being taken up by filtering paper, did not change color in the least in the presence of an alkali. The ethereal solution of the matter rejected from the stomach at the Hospital, however, had a bright-yellow tint, which was readily imparted to slips of bibulous paper. In this case, too, the strongest alkalies failed to produce the slightest change of color in the papers thus prepared. It may be that this yellowness was imparted by the presence of bile, which probably flowed into the stomach in greater quantity after repeated vomiting, which will account for its increased amount in the vomitus just before death. Even supposing the deceased did take a large dose of the bed-bug preparation of corrosive sublimate, and this, as well as any other, may be purposely administered in small doses, it is very doubtful if the slight amount of turmeric contained in any quantity she could have swallowed, could be detected after the first vomiting, and it appears by the testimony given in the *Journal* alluded to, that she did vomit at least once, and threw it out of the window when she found that a physician had been called. That, however, is a matter of conjecture. A matter of certainty, however, it is, that had there been any recognizable quantity of turmeric in either specimen of the vomitus, it must have been extracted and detected by the processes employed. A yellow coloring matter was obtained; it was taken up by bibulous paper, and thus presented in the most favorable condition to the action of the alkalies. If the paper had changed to a brown color, when treated with a solution of potash, no chemist would be justified in concluding that such change was absolutely due to turmeric, but as the

papers, yellow in color, did not undergo any such change of color, though submitted for a long time to the action of the alkali, we feel bound to state that in our opinion there is not the slightest chemical evidence to show that turmeric, or the peculiar bed-bug preparation of corrosive sublimate, was taken or administered in this case.

DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE VIII.—(Concluded)

THIS consideration of the method of managing the bowels suggests a similar view of the management of the urinary discharge. This is equally to be made the object of constant attention and superintendence. It is not sufficient to attend to it when its condition and mode of discharge is a principal element in the case, but in all cases to know how this function is going on. The character and quantity of the secretion and the mode of its discharge may have an important connection with diseases that in themselves do not proceed from or have any original relation to the kidneys or bladder. They may also admit measures of relief that will aid the system very much in its efforts, and on the other hand the neglect of such measures will often counteract these efforts and render them of no avail.

I do not propose to speak of the absolute diseases of the kidneys and bladder, these belong to a different part of our subject, but simply of those conditions that may arise in the course of ordinary diseases and may affect the comfort or state of the patient, although they may be only accidental.

The urine, in health, ought to be discharged at least three or four times every day. There are few persons in health in whom it takes place less frequently than this, and very many in whom it occurs oftener, particularly infants and young children. In old persons it may also often occur more frequently, but this is from a different cause; not from any necessity dependent on the quantity of secretion, but from an irritability of the bladder which incapacitates it from retaining its contents for any great length of time. In sickness we ought to be assured that the evacuation takes place at least twice a day, and if less than this, the state of the patient should be carefully watched in this particular. If this continues only a few days, and no symptom presents itself indicative of evil connected with it, no special interference will be necessary, particularly if opiates have been taken, because these at once diminish the secretion and the sensibility of the bladder to its presence, so that it tolerates a considerable accumulation. But whenever this deficiency exists, from whatever cause, the patient should be called upon to make voluntary efforts. These are usually sufficient. Where they are not, an enema or cathartic will often an-

swer the purpose. Where they do not, the nature of the difficulty should be thoroughly investigated.

In the first place, the secretion may be deficient. This may be transient, and even if it continues for some time, be attended with no evil result. It is not an uncommon attendant of acute diseases of all kinds, to a certain extent. The quantity secreted may be very small indeed, without injury. There is an immense difference in the indication between a very little and none at all. Whenever *no* urine is discharged for more than twenty-four, or at most thirty-six hours, and the means just mentioned do not procure it, the catheter should be introduced to determine whether any is secreted. If none be found in the bladder, the patient, to say the least, may be in a state of great hazard. It is true that the cause may prove an innocent one. It may depend upon some peculiar nervous condition, as in hysterical females, but on the other hand it may depend on that state called—though with very little propriety—"paralysis of the kidneys." But whatever the cause of an entire suppression, if long continued it is a symptom of a most grave and generally fatal character. The nature and treatment of this affection does not come within our present purpose.

We may find, however, that there is urine in the bladder. The quantity may be small or large, but there has been no perception of its presence, and consequently no call to discharge it, and no power, when a voluntary effort has been made. Where the quantity is small, an attempt should be made to increase it by diuretics, for thus by its mere bulk the urine may excite the bladder to discharge it. Where the quantity is large, it should be regularly drawn off by the catheter, since its presence in the bladder, even if it produce no local discomfort, almost infallibly excites some general disturbance and gives rise to symptoms that are sometimes alarming. Thus, in typhoid, the simple failure to discharge a large quantity of urine which the bladder retains, will occasion a great aggravation in the state of the pulse, of the skin, of the tongue, of the abdomen, and the mind, symptoms at once relieved by the regular use of the catheter as long as the impediment continues.

This state of things, viz., incapacity to discharge, without perception on the part of the patient of the necessity for it, is liable to occur under various circumstances, but is noticed most frequently in the advanced stage of acute diseases, especially where the mind has been affected; and it is often due to the approach of the comatose condition in affections of the brain. It may depend upon causes existing in the urinary apparatus itself, but more frequently is connected with the state of some part of the nervous system, as in paraplegia and hysteria.

We may find a state of things quite different from this. The patient may fail to pass urine, but he has a desire to do so, perhaps feels the need of it intensely and painfully, and makes fre-

quent and strenuous, but ineffectual efforts. On examination, the bladder is found full. This may arise from a want of contractile power in the organ, or from some mechanical obstruction. The catheter is the main dependence in this case, though many other measures may be employed, such as mucilaginous drinks, enemata, cathartics and fomentations. A large proportion of cases of this description are surgical, and depend upon some actual affection of the apparatus itself.

There are other cases in which the bladder becomes distended with a large quantity of urine, but without any considerable uneasiness, and when it is reported to us by those around the patient that he passes a sufficient amount. The fact here is, that the coats of the bladder are put upon the stretch till their mere mechanical reaction forces out the urine, frequently or continuously, by a small stream. The resistance of the surrounding parts to the distension, and so too the occasional contraction of the abdominal muscles when voluntary efforts are made, keep up the appearance of a free discharge, and yet the bladder has no power of emptying itself naturally and entirely, and may become enormously distended; yet there is usually very little if any mechanical obstruction. The diminished contractile power of the muscular coat is not sufficient to overcome the normal resistance of the sphincter. This state of things may be entirely overlooked, unless carefully investigated, and we may be surprised at finding, suddenly, a large tumor in the bowels, and, on passing the catheter, draw off several pints of water. There is no remedy for this but keeping the organ empty by the instrument; in this way it will usually regain its natural contractile power, but in some old persons it becomes a chronic condition, and requires constant artificial assistance.

In females, especially the nervous and hysterical, difficulties in the passage of urine are more frequent than in men, and, as they are often reluctant to speak of it, it should be made a subject of inquiry. In them the functions of this apparatus are especially under the influence of the imagination and the apprehensions, and the harmonious action of the several parts concerned in the evacuation are very easily disturbed by affections of the mind. I have known a woman who could not pass water when any other person, even her nurse, was in the room. This is but a single example of the slight causes that are sufficient to embarrass this function. The same delicacy of arrangement which in some cases produces retention, in others occasions incontinence; and the same mental agitation which in one female will prevent the voluntary passage of urine altogether, will, in another, cause it to gush away continually without any power of restraining it. Connected with this there is often from the same cause a variation in the quantity of the secretion. It may be very much diminished, but more frequently it is increased, and a well-known phenomenon is the formation in the kidneys of a large quantity of very light-colored urine—hardly to

be distinguished from clear water. This usually attends hysterical paroxysms, and is in them most marked. Still it is by no means confined to them, but may occur in all nervous diseases. It is usually to be regarded as a favorable indication as to the nature of the case. Cases in which it occurs are usually less severe than they appear. But this is not uniformly so, for it not infrequently presents itself in the most grave diseases of the organs of the nervous system, such as the various organic diseases of the brain. These variations do not usually require any interference, except by those means already referred to.

Conditions similar to the several ones which have been spoken of, occur also in young children. In their acute diseases, difficulties in the discharge of urine are not uncommon, but are almost invariably relieved at once by procuring an evacuation from the bowels, or by poultices, fomentations or the warm bath. Diminutions of the quantity of the secretion are commonly accompanied by an increase of fever, by restlessness and want of sleep. These symptoms are not necessarily the consequence of a fault in secretion, but may be the coincident results of the same state of disease. However this may be, no better remedies can be employed than the saline diuretics and the mild ethereal preparations, such as the nitrous spirits of ether.

Dysuria, strangury, too frequent micturition, with burning and uneasiness, and various other uncomfortable conditions attending micturition, are very common, especially in female patients, and though not formidable as to the final result, are very annoying, and often impede recovery. These depend often on a local irritated state of the bladder and urethra—often on some affection of the womb—and often, also, on some trouble in the rectum. Without determining precisely the seat of the difficulty, which cannot always be done, these can usually be relieved by certain common applications—such as compresses wet with either cold or warm water—poultices applied to the parts—warm fomentations—emollient injections to the vagina and rectum—and free dilution with emollient drinks, such as those made of flax-seed, elm bark, gum Arabic, and the seeds of the cucurbitaceous plants, squash, pumpkin, and water-melon. A decoction of peach leaves is often efficacious on a different principle. Very likely much of the relief afforded in this way is due to the increase in the quantity and diminution of the strength of the urine; still it is often greater than can be altogether accounted for in this way. These remedies have the recommendation that they can be used indiscriminately without any very nice diagnosis, and serve to occupy the patient's mind, which is no small benefit. In cases of great suffering, as in acute strangury from blisters, an enema of any mild liquid, with laudanum, gives almost certain and immediate relief, and should be always resorted to.

With regard to all the troublesome symptoms which arise from

the state of the rectum and urinary apparatus, it should be borne in mind that their effect in annoying the sick and of disturbing, not only the parts concerned, but the whole system, especially in feeble and nervous persons, and in the advanced stage of disease, is vastly out of proportion to their actual importance. Still, as the removal of suffering and promoting comfort is one of the great objects of medical treatment, and as all suffering and all discomfort has at least some influence in impairing the power of recovery, they are circumstances we are always to relieve, if possible, however trivial they may be as to their cause.

There are two causes of irritation in these organs which it is always important to determine and remove; not that their presence is necessarily very obscure, but because they often produce effects, the connection of which with them as a cause is not always readily detected—these are ascarides and piles.

Ascarides are chiefly noticed in children. They frequently produce distinct local symptoms, such as burning and itching, sometimes indirect effects in the generative organs, such as leucorrhœa, pruritus and dysuria in the female, and erections and perhaps incontinence of urine in the male, and sometimes the more general disturbances which are usually indicative of an extensive irritation of the lower part of the alimentary canal. There is no certain sign that the symptoms present are owing to ascarides, except their external appearance, for the same symptoms may be produced by other causes. But in all such cases, they should be suspected among the sources to which the trouble may be attributable, particularly where the origin and nature of the case are at all obscure. Though far less frequent in adults, they are sometimes the cause of very troublesome affections of the rectum, which may be treated in vain by all other means, but are removed as soon as this cause is detected and removed. A very effectual mode of relief is the introduction into the rectum of a bougie, or some suppository which has been dipped in whale oil, but a great variety of other articles will be found noticed in treatises. These I do not speak of here, as my object is simply to call attention to ascarides as a cause of irritation that may be overlooked in their connection with the points of treatment of which we have been speaking.

The same may be said of piles. When protruding or inflamed, but sometimes when neither in an inflamed or irritated state, they may prove the cause of a good deal of trouble, both in the rectum and generative organs, especially in females, and even of sympathetic pains in remote parts, and of a generally impaired state of health. In all obscure affections, therefore, the condition of the patient in this particular should be accurately determined, and the difficulty, if found to exist, treated by the well-known remedies of this disease. I should mention, however, a point in the treatment that is as important as any single measure—viz., keeping the whole diseased portion carefully within the sphincter.

It is surprising in what a miserable condition the protrusion of a very small amount of the disease itself, or of the inner lining of the rectum, will keep a patient. Patients who attend to this matter themselves are very apt to return the protruded parts improperly, from a want of knowledge of what is necessary. When the return is made with the dry finger, the returned portion or a part of it is very likely to follow as the fingers are withdrawn, or very soon afterwards. The patient should always be directed to perform the operation with two or three fingers well covered with oil, lard, or some ointment; to relax the sphincter by the same downward effort as that for the evacuation of the bowels; then to push the whole protruding portion quite up into the rectum, and withdraw the fingers cautiously, so that nothing shall follow them. A constant attention to these precautions is in all stages of piles one of the most important measures of relief—and, in the early, may prevent their increase, or lead to their permanent removal.

Selections from Medical Journals.

THE BITE OF THE VIPER.—Dr. Viaud-Grand-Maraïs has collected 203 cases of wounds inflicted by vipers. We subjoin some of his practical deductions:—

“The bite of the viper, like all other envenomed wounds, requires immediate attention, the most important point being to neutralize the poison before it has been absorbed. Three indications thence arise, viz., *to cut off all communication between the wounded part and the circulating system; to expel the venom from the bite; and to destroy it in situ.*

“The first thing to be done after a bite inflicted by a venomous snake of any kind, is to apply a *ligature* at two or four inches from the wound, between the latter and the heart; a neck-tie or handkerchief, a garter, or any other broad band, is preferable to a narrow cord. The ligature should be tightened sufficiently to cause the veins to swell, as in phlebotomy, but not enough to make a deep indenture in the flesh, which would increase the chances of inflammation, and might induce gangrene. This is but a temporary measure, and should not be persevered in for more than three quarters of an hour or an hour at most; and the band should even be loosened or displaced, if any increase of the local symptoms be observed.

“When the injured region (the head, neck, or body) does not admit of the application of the ligature, pressure should be exercised around the wound with the hands, while other methods of treatment are resorted to.

“To meet the second indication, the escape of blood and the extrusion of the venom should be promoted by incision of the punctures and pressure of the neighboring parts. Suction is also an excellent means of extracting poison, whether exercised with the mouth or with a cupping-glass. M. Viaud-Grand-Maraïs adduces in illustration two cases, which peremptorily demonstrate the beneficial effects of this measure.

“‘In the neighborhood of Blain, a man named Civel, aged 34, was bitten in 1858 by a common red-colored viper, while grasping a sheaf of corn. Dr. Sortais, who was fortunately present, applied a ligature, sucked the wound, which was situated in the right thumb, and exhibited hartshorn both externally and inwardly. The patient had entirely recovered from the effects of the injury on the following day.’

“This kind of aspiration extracts the venom with the blood, and the operator

should reject it as soon as it reaches his mouth. The poison, moreover, does not injure healthy mucous membranes: but if any sores existed on the tongue or within the mouth, cupping should be resorted to instead.

"In order to destroy the venom in the wound, appropriate chemical agents are employed. Hartshorn is a delusive agent; the success obtained by Messrs. Brainard and Green points out the watery solution of iodide of potassium and iodine as far more efficacious.

"A sufficient quantity of this fluid should be inserted into the bite. The following is the formula recommended by M. Viaud-Grand-Marais:—R. Aquæ, ℥iss.; potassii iodid., ℥i.; Iodinii, gr. xx. M.

"If this solution could not be obtained, if the symptoms were urgent, and the temperature of the skin falling, a knife, a nail—any iron implement, in short, should be immediately carried to a red heat, and used to cauterize the wound deeply.

"When emesis has supervened, cauterization is superfluous, and the practitioner must trust, for the purpose of checking the further progress of the poison, to sudorifics, tonics, ammonia (a few drops in a cup of tea), spiritus Mindereri, wine, coffee, together with the simultaneous application of cotton-wool and oil-silk, over the diseased parts, blankets, and bottles filled with water."—*Am. Med. Monthly*.

ARSENIC SMOKING IN ASTHMA.—The known alterative action of arsenic on the mucous membranes, as well as on the skin, would seem to account for its successful employment in asthma. A recent letter to the London *Lancet*, from Frederic G. Julius, M.D., which we re-publish entire, gives the following interesting case:—

"A French lady has been subject to spasmodic asthma for twenty-five years, during twenty-one of which she has been frequently bled, had issues and setons, smoked belladonna leaves and stramonium, taken every species and form of medicine, changed her residence to various places in Europe, and all without the slightest benefit.

"Four years ago, when at Marseilles, Dr. Cauvin read an account to her of the benefit derived by asthmatics in China from smoking arsenic. Her sufferings were so great that, although Dr. Cauvin fully pointed out to her the risk and danger she incurred, she insisted upon trying it.

"She commenced by smoking a quarter of a grain of arsenic three or four times daily in a cigarette, and this she continued to do for about fourteen days, with the greatest benefit to her breathing and general health. She has subsequently much increased the dose, and when she feels an attack of asthma coming on, she does not weigh the arsenic, but takes up what she considers a sufficient dose with a small paper knife. I asked her to-day to give me in a piece of paper the dose she intended smoking, which she did, and on weighing it carefully I found it a little over three grains. I analyzed it, and found it to be pure arsenious acid. I must also mention the important fact that she does not inhale the fumes and blow them out again, as in ordinary smoking, but when her mouth is full she swallows the smoke.

"The only ill effects she has ever experienced is swelling of the eyelids, and, when she first commenced, slight pricking pains in the stomach, but never to any troublesome extent. She considers herself cured. From being in a state of constant breathlessness and suffering, unable to lie down or make the slightest exertion, she is now able to go about like other persons, and is rarely threatened with an attack oftener than once in three or four months, and that is at once checked by smoking arsenic, with a very small quantity of belladonna or stramonium in the dose I have mentioned. She now uses, instead of a cigarette, a small red pipe about five inches long.

"She tells me that Dr. Cauvin has used arsenic in the same way in many cases of confirmed consumption, and has rarely failed in giving great relief and retarding the disease."

Army Medical Intelligence.

WE publish the following letter from the assistant surgeon of one of the Massachusetts regiments, now at the seat of war, from which we infer that our volunteer surgeons, untrained though they be to many of the duties of military life, are proving themselves, in some instances at least, faithful and efficient officers, a credit alike to the service and our State.

FORT ALBANY, VA., SEPT. 22d, 1861.

To the Surgeon General.

DEAR SIR,—It has just occurred to me that the few minutes of leisure I find on my hands between divine service and the supper call, cannot be better employed than in writing a line agreeably to your pleasant invitation at my last call at your office.

Excepting one week at Kalorama, we have been here since leaving Fort Warren. This fort (which, by the way, you may have visited), is situated on quite a high hill, or rather ridge, but is near enough to the lowlands for malaria to have a "right smart chance" at us. One of our companies has charge of Fort Runyon, two thirds of a mile towards Long Bridge, on the low land; and another has charge of the Virginia half of the Bridge and Fort Jackson, situated at the end of the Bridge and half a mile from Runyon. These two last-named localities are the chosen home of intermittent fever; the New York regiment preceding us there, reporting over four hundred cases in a month, occurring in not more than seven hundred men all told.

When we came in possession of these forts, we found them all filthy to an extreme degree, especially Fort Albany. The New York regiment, while here, had no sinks for sick or well, officers or men; and it is no exaggeration to say that acres were so covered with filth and garbage that only with the greatest difficulty could one walk with unsoiled boots, while the stench was absolutely sickening. By consent of the surgeon, I was appointed by the colonel a "Sanitary Commission," with unlimited authority as to the use of men, shovels, and teams, provided they could be spared from work on entrenchments (which proviso hindered me considerably). Borrowing a plough, I soon turned under a good top dressing upon about an acre and a half, had ditches and sinks dug, and had the garbage of the cook houses carted away and buried every day. That this labor was not thrown away, is proved by the fact that three of the eight companies at this place, though it was called by old residents "a mighty bad place for chills," have no one in the Hospital, and the other five have but six. And so far as the labor and care were concerned—and there was not a little of both—I felt amply repaid when, a few days ago, Gen. McClellan stopped with his staff and escort to say that the camp of our regiment was the cleanest and best ordered of any one within his knowledge—that he considered it as a *model*, and always spoke of it as such.

As soon as we came here, we, at the suggestion of an old army officer, had coffee distributed smoking hot to the men on guard during the night, and I think it has proved beneficial in warding off the effects of malaria. Having three forts, our men have a great amount of guard duty—each man often going on every other day for a week or two, and always twice a week. Recently, Gen. McClellan has ordered coffee in the morning, on rising, to all the men; which, however im-

portant, is in my opinion not as much so as that those out during the night should have it. We are now, in spite of all our precaution, having quite a number of cases of intermittent, though of a very mild type. Most of the cases get well in from three to six days—i.e., of the fever—not up to full strength, and we have not had more than three or four lasting over ten days. To-day we have fifteen in the Hospital, nine being from the two companies at Runyon and Jackson, thirteen being intermittent; and besides these, we have about a dozen very light cases reported “sick in quarters.” Very few of our cases have any shaking, or decided chill, but commence with general feverish symptoms. Mild treatment (so mild as to excite the laughter of our neighbors from the West) has proved sufficient so far. A light emetic of ipecac if the symptoms are severe, a little castor oil if any need for it seems to exist, and from six to ten grains of quinine a day, usually winds them up shortly—the quinine being continued in about three-grain doses per diem for a few days after the fever has left.

Of typhoid we have had but one well-marked case, which we left at Kalorama (Columbia College Hospital), when we came here, and which is now convalescent.

Diarrhœa was quite prevalent at first, and we had a few light cases of dysentery; but of late we have had but very little of either.

We have had three deaths—the first very sudden, during sleep, supposed to be “organic disease of the heart,” as his father died in the same way. The second died in the Infirmary where he had been placed with fractured femur, at a time when an attack was daily expected; and the third was accidentally shot while on guard.

But I shall weary you if I write any more, if I have not already; so I will merely say further, that I like this sort of life (even including two or three days’ service with the pickets at Bailey’s Cross Roads, near Munson’s Hill), and enjoy myself most when there is most to do.

In addition to this, letters have been received during the week from the Surgeon of the 18th Regiment (Col. Barnes), the Surgeon of the 12th Regiment (Col. Webster), and Surgeon Otis, of the 27th Regiment, in camp at Springfield.

The Surgeon of the 18th writes:—“You will be pleased to learn that our men are in good health. The staff officers are all gentlemen and men of refinement. In such company one can cheerfully submit to toil, privation and fatigue, and the many vexations inseparable from the breaking in of the ‘Yankee sovereign’ into a soldier. I recently amputated through the metatarsal bone of the lesser toes, for a gunshot wound, leaving the great toe. The stump is a beautiful one.”

The Surgeon of the 12th Regiment writes from Pine Camp, near Muddy Creek Ford, Md.:—“Since writing you we have moved our camp from Darnestown to this place, six miles distant. We are now guarding one of the most important fords on the Potomac, and have to keep constantly on the alert, not knowing at what hour we may be attacked. Our camping ground is the most beautiful spot I ever saw—on a high, sandy ground, about a quarter of a mile from the Potomac, and surrounded by pine trees, very well protected from the miasmata rising from the river, and our picket guards have good buildings for headquarters. The men are in remarkable health, only four in hospital. In fact, we could not be more pleasantly situated, and I was never happier in my life.”

Surgeon Otis, of the 27th Regiment, in camp at Springfield, writes : " I am gratified to report the remarkably good health of our camp. There were to-night 689 men in quarters. I have three tents provided with rough but comfortable bunks, where I have treated the more serious cases of diarrhœa, which affected a number of the men commencing camp life during the inauspicious weather of the last week. The most serious case that has occurred is a peculiar one, of profuse pulmonary hæmorrhage resulting from a blow on the lower lateral portion of the left chest, accidentally inflicted by the elbow of a comrade while they were drilling at double quick time. The patient, a robust subject, exempt from any obvious thoracic disease, is convalescing. I had a spare servant's room, and provided for him at my house. All my associates on the staff second my exertions for the proper sanitary regulation of the camp."

We are glad to add to the above that other accounts from the regiments are equally favorable, and reflect credit on the Massachusetts medical staff now in active service. The health of the regiments now in camp in this State is remarkably good—a mild form of diarrhœa, easily controlled, being the disease the surgeon is most often called to treat.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 3, 1861.

THE ALCOHOL QUESTION AGAIN.—The discussion of the alcohol question still goes on in England. We published, a few weeks since, a lengthy extract from an interesting article by Mr. Daniel Hooper, in the London *Lancet*, advocating the moderate use of stimulants by all classes. His argument would be likely to have more weight in England than with us, sustained as it is by the almost universal usage of the country. There, if anywhere, the burden of proof must rest on those who take the adverse view. Long established custom, and the consequent adaptation of the system to the use of stimulants, greatly complicates the question, and when the habits of a whole community are involved seriously embarrasses the judgment in arriving at a sound conclusion. As usually conducted, the discussion, it seems to us, does not sufficiently take into consideration climatic and other local influences which may have a very important agency in determining the power which stimulants exert on the nervous system. The immense difference in this respect between England and our part of the American continent is a matter of every day experience. So, too, the temperament of the individual, as acted upon by one or the other alcoholic liquid, is a very important element in the discussion. Everybody knows what a marked difference the different kinds of wine have in their effect upon different systems, almost indicating a sort of physiological as well as gustatory elective affinity. All things considered, however, we incline to the views of those who advocate total abstinence rather than daily indulgence. The admitted fact that the highest physical health, when men are being trained for an especial effort which shall task their powers of endurance to the utmost, is best se-

cured by great abstemiousness is a most weighty argument. The experience of armies, which has brought our military authorities to the conclusion that soldiers are vastly less liable to disease when entirely deprived of stimulants, is another. The fact, which is laid much stress upon by some, that because there is hardly a nation known which has not devised a method of preparing some form of them for its own stimulation, and that therefore their use is in accordance with a law of nature, does not seem to us to have much weight. There is not a vice or form of iniquity which might not be defended on precisely the same grounds.

The theory, which has been advanced with considerable plausibility of late, that wine is food, has done much to sustain the course of those who like to have a physiological argument to sustain their habits of self-indulgence. This argument is met in a recent communication in the London *Lancet* by Mr. Metcalfe Johnson, M.R.C.S. As medicinal agents we cannot question the utility of stimulants, in many instances, and their utility seems to be greatly enhanced by previous habits of temperance in the patient. As an occasional indulgence on social and festive occasions we would not decry them; always bearing in mind the danger of imitating that astute old man, whose sheep-washing occasions soon grew into a daily hydropathic discipline for his unfortunate victim, after having received a dispensation for an ardent potation at such times only. The article by Mr. Johnson is as follows:—

“The first question that seems to arise is—What is a moderate quantity of alcohol to be taken per diem? Let us say a pint of beer, and inquire what are its effects, and how it may be expended.

“On a person accustomed to its daily use the effect is inappreciable; but to a person habitually a total abstainer it will first cause a temporary exhilaration (lasting, say, for twenty minutes), next a sensation of drowsiness, and for an hour or two after a corresponding depression.

“Now how is it expended?

“One pint of beer will contain about 98·30 grains of alcohol, or 51·24 of carbon, 12·81 of hydrogen, and 34·16 of oxygen.

“Now, if this is assimilated (which is, to say the least, doubtful), is it an economical sort of food? Compare it, then, with an ounce of bread, which contains 118·94 grains of carbon, 40·94 of hydrogen, 315·93 of oxygen, and 4·14 of nitrogen. Now we know that naughty boys can live on bread and water, but do we find that good or bad boys or men can live on beer alone? if they cannot, how can it be a proper food?

“Then comes the question—Is alcohol assimilable? * In large quantities we know that it passes through the blood as alcohol unconsumed. Does any other food proper—say bread, potato, arrowroot, rice, beef, or mutton—ever pass through the blood in the shape of its original composition? Of course not.

“There is one authority to whom Dr. Hooper has not referred, whose investigations of late on the relation of food to respiration have thrown much light upon the subject. I refer to Dr. Edward Smith, of the Hospital for Consumption, who shows, perhaps without intention, but I think most plainly, that alcohol does not deserve to rank as food, inasmuch as it is one of the worst respiratory excitants; and since it is, I think, allowed that food possesses value in proportion as it excites respiratory changes, we shall see that by comparing brandy with bread, the former gives only 0·38 while the latter shows from 1·48 to 2·4 per cent. increase of carbonic acid in respired air.

“Dr. Hooper refers to the brain-operatives as requiring alcohol, while the muscular-operatives work well on ginger beer.

“Now a somewhat extended acquaintance with public lecturers—a class of men

* The researches of MM. Lallemand, Perrin and Duroy point to the fact that alcohol passes in great measure undigested through the blood.

who live by brain-work—has shown me that the successful ones find it most conducive to their studies to pursue them on the total abstinence principle.

"To class alcohol with tea, coffee, and butter, as with foods proper, seems to me a fallacy, inasmuch as tea and coffee are more condiments than foods; while butter is an article of very low respiratory excitation.

"In speaking of alcohol as a poison, we must not forget that Nature has ordained a sort of elasticity in the power of man's digestion which enables him, without harm, to consume a small portion of articles of diet which in excess are poisonous, as tea, coffee, &c.; but this does not of itself entitle them to be classed as foods proper.

"If 'the aim of all food is force,' what relation will alcohol bear to force in those who are not (to use a parallel word) acclimatized to its use?

"In reference to Dr. Chambers's remark, that alcohol does good because a man used to its consumption feels better with than without it, I beg to suggest to such persons to make a trial of a long abstinence from it, and if they find (as they assuredly will) that they can do all without which they formerly could with it, then I think the conviction will force itself upon them that they have hitherto been wasting what might have been turned to a better use than the consumption of the cereals in the shape of alcohol.

"As I do not wish to occupy your space with unnecessary verbosity, I will content myself with observing, that alcohol alone of all other articles of diet fails to satisfy the appetite by consumption. There is a limit to the quantity of beef, bread, &c., as well as of jam tarts, which we can consume, and all the 'standing up' in the world will not enable the eater to use more than a given quantity; but alcohol requires no standing up to enable the consumer to take more than is good for him."

THE LATE DR. J. H. LANE.—The death of this much lamented physician seems to have been marked by that deep and heartfelt sorrow among those who had enjoyed the fruits of his friendship and professional skill, which shows how faithfully he discharged the duties that devolved upon him as a conscientious physician. Our departed brother has left an example of Christian benevolence which should not be without its influence on those of us who survive.

At his funeral, which was numerously attended, Rev. Dr. Kirk expressed himself in a few brief but eloquent words, and bore his testimony to the high character of the deceased. We quote the following:—

"Physicians, like other men, must live of their profession. Yet, probably, few classes of men do so much unrecompensed professional work as they. Our friend, there is reason to believe, was behind few, if any, in gratuitous service. He had learned that 'it is more blessed to give than to receive.' I have heard of a friend of his, dying, and leaving a family entirely without property. The widow and the orphans, for twenty-three years, have enjoyed the same unremitted, kind, skilful attentions, the same professional services, unrequited. They cannot be unwilling I should record it here. In fact, it is already appearing that his left hand was not permitted to know the beneficent doings of his right hand. Grateful utterances are already mingling with the exclamation from many: 'Ah! I have lost an invaluable friend.'"

WE have received the following note in reference to Dr. Cotting's ingenious extension apparatus for fractured thigh. The objections it contains are met to some extent by the note from Dr. C. which follows. In further reply to the queries it contains, it might be said that, practically, Dr. Cotting's apparatus works well and comfortably for the patient, as it stands.

MESSRS. EDITORS,—I observe, in the last number of your excellent JOURNAL, a brief account, by Dr. B. E. Cotting, of an ingenious appli-

ance for the treatment of fractured thigh ; and I should like, in connection with this subject, to present a few thoughts to Dr. Cotting for his consideration.

The first point which I desire to note is, that the muscular structure of the thigh is made up of twenty-five muscles, twelve of which arise from the pelvis and are inserted into the thigh-bone ; six arise upon the thigh-bone and are inserted into the tibia ; six arise upon the *pelvis* and are inserted into the tibia ; and one has both its origin and insertion near the knee-joint. The difficulty to which the Doctor adverts, of "maintaining permanent extension adequate to prevent shortening of the limb," is all to be found in those muscles which hold between their extremities two joints, the hip and knee ; and these muscles are the six which arise upon the pelvis and are inserted into the tibia, and only *two* of those have anything to do with it—the sartorius and gracilis.

These muscles are the longest that they can be made, when the body and limb are in position assigned by Dr. Cotting for treatment ; while the other four are short of their extreme length by from two to four inches. If the Doctor should lay his patient upon the back, and flex the thigh upon the body to an angle of sixty degrees, and then lay the leg horizontal, the distance between the points of origin and insertion of the sartorius muscle would be from four to five inches less than it is in the position which he indicates ; and that of the gracilis from two to three inches less.

Now, why straighten the limb, and put these muscles upon the stretch ? In this bent position everything is loose, and there is no more occasion for all the counter-extending appliances than there is for the hanging of the patient ; and why lay it straight and involve one's self in this necessity ?

E. DANIELS.

Owego, N. Y., Sept. 23d, 1861.

"FRACTURE APPARATUS." *Messrs. Editors*,—Dr. Chapin's kind reference is duly appreciated. Mortise holes in side splints, which he lays so much stress upon, though merely a partial copy of Hartshorne's, in use more than twenty years ago, are very convenient whenever the dressing of a wound requires the frequent removal of one of the long side splints. But when a splint cloth is desirable, Flagg's, having mortise holes in the cross-piece, is for obvious reasons much better. Better than either is that which dispenses altogether with the inner long splint, so apt to excoriate the perinæum under the best of care. Strange to say, however, Dr. Chapin, while he thus makes no essential amendment to Hartshorne's or Flagg's apparatus, retains their other objectionable features, viz., the old belt chiefly dependent on the perinæum or groin straps for counter-extension, and the gaiter or common ankle gear. To obviate the difficulties arising from these, and such as these, in actual practice, the belt and stocking described in my paper were adopted, and found adequate. They have been tested many years in many cases of fractured thighs, and not in one single case of the *leg* only, as Dr. Chapin's. They may be employed with any long splints the surgeon may prefer, though the rude one we described will fulfil all indications. They will be found serviceable even when the surgeon tries the double inclined plane, or chooses to risk the flexed position of the limb ; but most surgeons will agree with Mr. Fergusson, who says :—"Notwithstanding Mr. Pott's very ingenious

and often-quoted arguments in favor of the bent position, I give decided preference to the straight in most fractures of the thigh-bone, and to the use of such an apparatus as shall keep all steady from the loins downwards, and at the same time permit of that continued extending force being applied which I deem of so much consequence in all fractures of the thigh showing the least tendency to displacement and shortening."

Very respectfully,

B. E. COTTING.

MEDICAL SCHOOL OF MAINE.—Dr. Wm. C. Robinson, of Portland, has been chosen Lecturer on Materia Medica and Therapeutics in the Medical Department of Bowdoin College, Me., to fill the vacancy made by the transfer of Prof. I. T. Dana to the Chair of Theory and Practice of Medicine. An elegant and commodious college building is now in the process of erection, to be dedicated at the opening of the next course of lectures.

JEFFERSON MEDICAL COLLEGE.—We have been informed that Dr. Keating's resignation of the Chair of Obstetrics in this institution, which was presented on account of his ill health, has been withdrawn. It is understood that the former incumbent of the chair, Dr. Charles D. Meigs, will lecture in Dr. Keating's place during the coming season.—*Med. and Surg. Reporter.*

THE SANITARY COMMISSION.—The following Philadelphians have been appointed on the Sanitary Commission: G. B. Wood, M.D.; Prof. J. F. Frazer; Samuel D. Gross, M.D.; Henry C. Carey; Rev. Albert Barnes; John C. Cresson; Robley Dunglison, M.D.; Horace Binney, Jr.; Rev. H. J. Morton; Wilson Jewell, M.D.; Rev. H. W. Ducachet; Francis G. Smith, M.D.—*Ibid.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, September 28th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	44	36	80
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	49.5	42.3	91.8
Average corrected to increased population, . . . . .	..	..	101.80
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
10	16	0	4	2	0	1	2	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.016	Highest point of Thermometer,	79.0
Highest point of Barometer,	30.212	Lowest point of Thermometer,	43.0
Lowest point of Barometer,	29.534	General direction of Wind,	W.N.W.
Mean Temperature,	59.9	Am't of Rain (in inches)	0.51

COMMUNICATIONS RECEIVED.—Extracts from the Records of the Middlesex East (Mass.) District Medical Society.

MARRIED.—In Salem, Sept. 21th, Francis H. Brown, M.D., of Cambridge, to Louisa B., daughter of Chas. F. Eaton, Esq. of S—In Concord, N. H., Sept. 4th, Dr. Geo. H. W. Herrick, of Billerica, Mass., to Miss Jennie V. Beane.—In Warren, R. I., Sept. 23d, James R. Dow, M.D., of Brooklyn, N. Y., to Miss Emille Richmond, of W.

DIED.—At North Conway, N. H., Sept. 28th, whither he had gone for the benefit of his health, Dr. Jacob Hayes, of Charlestown, Mass.

DEATHS IN BOSTON for the week ending Saturday noon, September 28th, 80. Males, 44—Females, 36.—Accident, 1—Inflammation of the bowels, 2—disease of the brain, 2—cholera infantum, 16—cholera morbus, 1—consumption, 10—convulsions, 1—debility, 1—diarrhœa, 1—dropsy of the brain, 4—dysentery, 1—erysipelas, 1—scarlet fever, 4—typhoid fever, 2—hemorrhage, 3—disease of the heart, 2—laryngitis, 1—intemperance, 1—disease of the liver, 1—congestion of the lungs, 1—Inflammation of the lungs, 2—marasmus, 5—old age, 2—pleurisy, 1—premature birth, 3—puerperal disease, 1—scrofula, 1—sore throat, 1—syphilis, 1—tuberculosis, 1—ulcer (of the stomach), 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 49—between 5 and 20 years, 7—between 20 and 40 years, 11—between 40 and 60 years, 7—above 60 years, 6. Born in the United States, 64—Ireland, 16.

THE
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No. 10.

A PRACTICAL ESSAY ON ANEURISM.

BY WILLIAM-EDWARD COALE, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE following is intended to be a concise, yet comprehensive, practical treatise upon aneurism. With the view of making it so, we have given merely enough of the history of surgery bearing upon the subject to show the steps by which we have arrived at our present views of the proper treatment of the disease. Beyond what we have incidentally thus given, we have omitted all theory, and have made no reference to authors except in instances bearing directly upon the matter in hand. Neither have we given many detailed cases. Few subjects in surgery have been written upon so largely as aneurism; and had we not imposed such a rule, and adhered to it rigidly, our essay would have grown to an inordinate size. We have, however, carefully, and we believe thoroughly, searched the later works, and particularly the journals of the last ten years, and have drawn from them whatever could throw light on the merits of the various remedies now in use—ligature, compression, manipulation, &c. The claims of these we have carefully analyzed, and have striven to portion off to each impartially its peculiar excellences, and to assign to each the particular class of cases in which it promises to prove more specially efficacious. The labor of doing this has not been slight, though for much of it there is but little to show. We hope, however, as our reward, that we have succeeded in our intent—to furnish practical men, for practical purposes, the practical results of what has been achieved in this branch of surgery—but which has been so scattered through voluminous works and through years of numerous periodical publications, as to be unattainable except by a few.

PRELIMINARIES.

Various attempts have been made to explain the derivation of the term aneurism. It would scarcely be profitable to enter into a discussion of the several explanations offered, and only interest-

ing to do so, as hinting to us the theories of old writers on the nature of the affection. Montanus offers a solution in *a*—privative; *neuron*, a nerve. But we cannot see the applicability of this, unless in the supposition that the disease was caused by a want of nervous power in the artery. Others give it as—*aneurisma*, an enlargement; from *euruno*, I dilate. This is urged by Sylvaticus. To us, as ready an origin is offered in the word *aneu*, without; *rusmos*, a series, course or succession (from *ruo*, I flow). This does not seem an inapt derivation when we consider some of the notions of the ancients concerning the nature of the disease.

But, as we have already said, this is rather curious than practical.

Researches into the early literature of our profession are equally unprofitable, when we look for practical results. The disease was recognized, it is true, and described by some writers, with much accuracy as to its external and obvious characteristics, but as the circulation of the blood was as yet unknown, and morbid anatomy unthought of, the intimate nature of the affection was not understood.

To give a specimen of the notions of some of the early writers on the subject:—

Galen considered aneurism “a dilatation or relaxation of a venous vessel, with a dispersion of the spirituous matter under the flesh, where it distributes itself by jerks.”

Actius, in the 6th century, describes it as “a dilatation of vessels most frequently met with in the throat, commonly happening to women in labor, on account of the forcible detention of the spirits. The blood and spirits being poured forth, collect under the skin.”

A thousand years later, it is described by Fernelius as “the dilatation of an artery full of spirituous blood;” and Parè has scarce advanced from Galen when he says “an aneurism is a soft, compressible tumor, occasioned by the blood and spirits being effused under the flesh, in consequence of the dilatation or relaxation of an artery.”

Even as late as Lancisi, in 1728, there was but little additional enlightenment as to the real and intimate nature of the affection. Gross errors of diagnosis, of course, were made, and diseases of a very different nature were described as aneurisms. And yet we are surprised to find certain distinctions made and incidental peculiarities noted. Thus, Galen makes the distinction between ordinary aneurismal tumors, and varicose aneurism and aneurism by anastomosis, as he terms it. Parè also describes the distinctive differences between various kinds of aneurism, and shows the sources of error in diagnosticating the affection—how that some aneurismal tumors do not pulsate, whilst other tumors not of that nature pulsate from being superimposed upon an artery. Certain other points, such as the condition of the various coats of the artery during the disease, were observed and commented upon,

and we must express our astonishment that whilst so many truths of the nature of the affection were clearly recognized, so many apparently obvious facts were not noticed—and still more, that in the observations and experiments then made, and in the operations then performed, and with great success, more light was not thrown upon the nature of the circulation, and the physiology of this function clearly laid open.

DEFINITIONS.

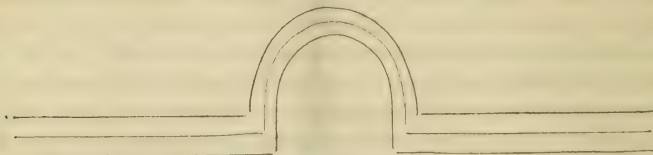
It is important that, in the outset, we should clearly define what limit we set to the term aneurism, because we find it applied to a variety of affections which can scarcely be comprised under one generic head. It is also much modified in its use by several explanatory or restricting terms—as true, false, external, internal, &c. We must, therefore, occupy a little space in definitely apportioning all, and distinctly fixing these in their proper place, so that the particular subject of our remarks may be clearly apprehended. And first, to eliminate from our essay that which does not belong to it, we cite an improper use of the word aneurism. For more than a century since, until late days, the term *aneurism of the heart* was in frequent use, with the additional distinction into *passive and active aneurism of the heart*. These terms are now entirely excluded. The former—*passive aneurism of the heart*—as it was called from Baglivius to Corvisart, was applied to a general dilatation of the organ, with thinning of the walls. The other—*active aneurism of the heart*—was used when the whole substance of that organ was increased, an affection now better known by Bertin's term—“*concentric hypertrophy*.” These affections, of course, do not belong to our subject in the slightest, and we therefore dismiss them here entirely.

The simplest and best defined affection to which the term aneurism is given, is a dilatation of the arterial tube, forming a tumor, generally to one side of, and without, the line of it. Sometimes, the same condition of the arterial tunics which gives rise to aneurism, implicates the whole circumference of the vessel. We then have a dilatation of the whole tube, instead of an expansion to one side only. To this last-mentioned affection, Mr. Guthrie has with great propriety given the distinctive appellation of *preternatural dilatation*, instead of aneurism.

The condition of the tunics of the artery may vary in different aneurisms, and this fact has given rise to distinctive terms in describing these affections. Thus, there may be no lesion of continuity in any of the coats, but they may be simply distended—stretched and attenuated by the stretching on one side of the tube; or one or two of the coats may give way. The existence of the first condition, perfect integrity in continuity of all the tunics, has been denied by Scarpa and others, who maintain that all spontaneous aneurisms are caused by a rupture of one or more of the coats of

the artery; but careful dissections have shown, beyond controversy, the existence of decided aneurisms with no lesion in the substance of any of the tunics. It is true, however, that in advanced cases, when the tumor has acquired much size, the fibrous coat is ruptured, and often, with it, the internal or serous one.

The following diagrams are given by Wardrop, to illustrate the different conditions of the arterial tunics in aneurisms.



The three coats equally distended.



The sac made of the inner and outer coats—the middle one ruptured.



The last stage of the true aneurism. The outer coat alone remains. After this the aneurism becomes a false consecutive one.



The aneurism composed of the inner coat alone.

To this kind of aneurism, commencing, so to speak, spontaneously, and still retaining as an envelope one or more coats of the artery, the term *true* is applied, in contradistinction to that in which there is a lesion of continuity in all the coats of the vessel, the walls of the tumor then being formed by the surrounding cellular tissue alone. This latter kind of aneurism is generally caused by direct mechanical violence, though what was originally a true aneurism may in an advanced stage, by over tension and rupture of all the tunics, be converted into a false one.

These two terms—true and false—embrace all cases of aneurism proper.

Many other terms have been used by writers on pathology and surgery, in speaking of aneurism, but we do not think that they tend to make the subject clearer. Thus, a true aneurism, converted by the yielding of all the coats of the artery into a false aneurism, has been termed a *false consecutive aneurism*. The term *exter-*

nal mixed aneurism has been applied when the internal and middle coats have given way, leaving only the external. An *internal mixed aneurism* is where the two outer coats have given way, but the integrity of the inner one has been preserved. This latter condition has also been termed *hernia of the artery*.

Then, according to their shape, aneurisms have been styled *diffuse*, *fusiform*, *cirroid*, *cylindroid*, *sacciform*, &c., and the French have even subdivided these varieties. But, as we have said, we do not see that this illustrates the subject in the slightest degree, or leads to a classification which assists us at all.

Another form of disease of the artery to which the term aneurism has been applied, is presented in what is termed *varicose aneurism*, in which the artery discharges into a vein—the coats of the latter forming the walls of the tumor.

Before leaving this portion of our essay, we must allude to the term *aneurism by anastomosis*. This is applied to a congenital erectile tumor, composed of a congeries of capillaries. It is not pathologically associated in any way with aneurism, and bears another name—*navus maternus*—which, though bad in itself, is better than the other. Of course this affection will receive no further notice in this treatise.

CAUSES OF ANEURISM.

The proximate cause of true aneurism we must of course look for in a morbid condition of the tunics of the vessels; but although pathological anatomy has not neglected this subject, we are as yet furnished with little that we can rely on as to the precise nature of the intimate changes these structures undergo, leading to formation of aneurism. Nor can we consider this strange, for the diseased condition of the parts is seldom displayed to us except at an advanced stage, when many modifying influences may have been exerted to alter its primary character.

The affection of the artery, which, according to Rokitsansky, plays the most important part in producing aneurism, is the excessive deposition of the lining membrane of vessels. Unfortunately, the views of this distinguished pathologist, as regards the sequence of the changes the parts undergo, are not expressed with the clearness we could wish. He considers it “the most frequent form of disease affecting the artery, and on that account of the greatest importance. It consists in an excessive formation and deposition of the lining membrane of the artery derived from the mass of blood, and at the same time constitutes hypertrophy of the membrane.” * * * “In a highly developed form of this affection, we find the inner surface of a large artery covered with a foreign substance spread over it at separate points, or in large patches, and forming a structure varying in thickness, by which the inner surface is commonly rendered uneven.” * * * “The thickness of this deposition varies from a quarter of a line to

two lines and upwards." The circular fibrous coat is found, when compared with the other arterial coats, to be soft, brittle, cleft, and of a faded dirty-brownish color.

The cellular sheath exhibits considerable vascularity and puffiness, or is in a state of sclerosis. Thus, though the disease may have commenced in the inner coat, the others partake with it in the degenerescence. Their cohesion is lessened, particularly in the outer one, and all are prepared to yield readily to an impulse from within. This is the most common condition of the artery antecedent to the formation of an aneurism.

Mr. Guthrie, in his admirable work on Diseases and Injuries of Arteries, has given much the same account of the condition of the tunics of the vessels, but has placed the phenomena in a slightly different order—making the loss of elasticity first, the result, probably, of some unappreciated molecular change, and then the deposits of depraved matter upon the inner coat. He, as well as Hodgson, Begin, and some others, consider this condition an inflammation, in which they differ from Rokitsansky. But it is evident we must as yet be content to consider this last point, as well as the relation of one condition or phenomenon, as regards succession, to the other, undetermined.

Among the predisposing causes of aneurism have been cited certain habits and conditions of the system, natural or acquired—old age, syphilis, mercurial salivation, intemperance, &c., but these cannot of themselves be deemed causes with strict propriety. They may, it is true, lead, among many other tendencies, to the morbid condition of the artery just described; but this we consider too indefinite and uncertain to enable us to place them in a sequence of causation. Nor do surgical statistics as yet furnish us with any facts as to the frequency of aneurism with one of the above as a precursor; still less can we make any comparison of the relative frequency of one with another as a precursor of aneurism. Marjolin also cites hypertrophy of the heart as a cause, subjecting the arteries to an impulse which they cannot endure, and some have cited an habitual over-distension of the arteries, with a congenital thinness of their coats, as a not unfrequent cause—giving to this state of things in the patient the name of *aneurismal diathesis*.

Immediate Causes.—Experiments made by the most skilful experimental physiologists, and often repeated, have shown that the arteries possess great powers of endurance, and that Nature is fertile in her means of repairing or compensating for any damage done to them. We cannot, therefore, believe that aneurism ever occurs in the ordinary demands upon an artery whilst it is in a normal state.

Pathologists, we believe, now universally concede this. When it is diseased, however, many acts, otherwise innocuous, operating either directly or indirectly upon the vessel, give rise to aneurism.

Thus, aneurisms of the aorta have been distinctly dated from some violent exertion—a fit of coughing or of sneezing, or prolonged muscular effort, quickening the action of the heart and increasing the force of the impulse of the blood. But invariably in these cases, besides the aneurismal affection, the artery in the neighborhood is found diseased—most generally permeated with atheromatous deposits. The sudden extension of the leg has started a popliteal aneurism, and blows have developed the affection in arteries so protected that the shock must have been much broken, but in neither of these cases can we suppose that the artery was in a normal condition.

SYMPTOMS.

We have no symptoms recorded which can be considered premonitory of aneurism. The patient, in describing his case, will tell you that upon a certain occasion, often that of some violent exertion, he felt a sort of snap in the part, accompanied by a smart twinge of pain for a moment, and followed by a persistent uneasy sensation. This symptom seems not to differ, whether the aneurism be external or internal—that is, within one of the great cavities. When these sensations have proceeded from aneurism of the thoracic aorta, they are frequently attended by nausea and vertigo, probably from some disturbance of the par vagum. In a large number of cases we have no such notice of the commencement of the affection, but if it be external it is only discovered by the accidental detection of the tumor itself over the tract of some artery. There is nothing distinctive in the shape of this; it may be round or oblong, and with scarce any exception, in this early stage, is even in surface—not nodulated, as it may be, and often is, at a later period.

When within the thorax, its existence is made known by the disturbance of important functions caused by its mechanical encroachments upon the neighboring organs—more particularly upon the nerves supplying vital parts, or upon the lungs, embarrassing these in their functions to a greater or less extent. The general circulation, of course, in time becomes implicated in the trouble near its source, and in the later stage of the disease helps to tell the story of its advances.

Attention then having been called to the tumor in the one instance, or to the train of disordered functions, more or less numerous, in the other, we must next look for characteristic and distinctive signs that we have an aneurism to contend with. There are several such, though some of them may be deficient in particular cases, and others may be simulated under certain circumstances by affections of a very different nature.

Pulsation is the most obvious and constant one. The tumor, upon pressure, is found to receive an impulse synchronous with the contraction of the heart. Were this impulse always prompt, de-

cided and well defined, as to the limits over which it is felt, it would seldom mislead us. But it is much affected, as to these qualities, by several modifying circumstances—the depth of the tumor, the nature of the tissue beneath it and of that between it and the surface, its distance from the centre of circulation, the thickness of its walls, &c.; so that sometimes we have the impulse very feeble, at other times so diffused as to render us doubtful as to what we must refer it, and other parts may partake in it so as to still further lessen its direct import.

This symptom, too, may be simulated by tumors of a different nature lying directly over the course of an artery, and many errors of diagnosis have thus been made by very skilful surgeons; soft elastic tumors, steatoma and fatty tumors cause such errors mostly. We once had a case of abdominal tumor, which it was difficult to believe was not aneurismal. It received an impulse so direct from the aorta, over the tract of which it was situated, as to give it every appearance and feel of coming directly from it just below the mesenteric artery. Other corroborating symptoms were lacking, and the subsequent history cleared the diagnosis completely.

Pulsation in some cases may be absent. The aneurism may be so bound down and so completely cushioned by the soft parts above it, as not to communicate to pressure from the outside a sufficient impulse to be indicative. These cases, as may be supposed from the combination of circumstances necessary to produce them, are necessarily rare. In old cases, however, where the clots lining the sac become very thick, dense and unyielding, the pulsations are so deadened as to be no longer a distinguishing and striking characteristic, but of course we would have enough else to mark the case, and, except under very peculiar circumstances, the diagnosis would have been made long before the disease has arrived at this stage.

Pressure early in the disease at least diminishes or even entirely empties the sac, which yields with the sensation of fluid within. On removing the pressure, it again fills, and generally with a thrill, as if the fluid were squirted by jets into it with more or less violence. Placing the ear in contact with it at this moment, a whizzing noise can be heard. Pressure upon the artery above the tumor renders it soft and flaccid, whilst pressure below it makes it tense, and even hard. In later stages of the disease, when the contents of the sac are more solid, this symptom fails, and if at the same time the walls have been thinned, it would be very improper to attempt to elicit it.

Another symptom is furnished by auscultation, which, when the tumor has acquired any notable size, enables us to detect a whirling or whizzing sound at each impulse of the heart, caused by the blood leaving its regular course within the cylinder of the artery and entering the cavity of the aneurism.

Dr. J. H. S. Beau published a series of papers in the *Archives Générales de Médecine* for 1838, and continued or rather enlarged upon them in that Journal for 1845 and 1846, on the subject of arterial murmurs. He goes into the matter of aneurismal sounds at length. We do not wish to embarrass our essay by any foreign matter, nor could we, indeed, quote to any advantage from Dr. Beau; but we cannot but allude to his essay as a very interesting one, and very thorough upon this particular point. We may say, in brief, that he considers the aneurismal murmur to be caused by the blood rushing into a cavity already filled with the fluid. This sign can scarcely mislead us, except when the aneurism is deep in one of the great cavities. There it may be masked by other sounds, such as those of the heart, particularly when it is diseased, and its regular rythmical murmurs have sounds produced by roughened or insufficient valves interpolated, so to speak, between them. The placental murmur resembles, in some cases, very strongly the aneurism sound, but the aids to discrimination between these are self-evident.

With the exception above given, the symptoms of aneurism are *generally* reliable, and if we get two or more to confirm each other, our diagnosis may be confidently relied upon, more particularly if the previous history of the case can be furnished with definiteness and accuracy. Errors of diagnosis, however, have occurred in this matter, even with the most skilful and experienced of our profession, and this fact we think ought to be acknowledged frankly and stated plainly as a guard to over-confidence, though by most writers the symptoms of aneurism are described as being clear, and, with proper care, unmistakable. This is not strictly so; as we have just said, the symptoms are *generally* reliable, but the exceptions, no matter how rare, ought always to be held before our view, as warning against too implicit reliance upon what may seem plain and self-evident. As an illustration of the necessity of our caution, our note-book furnishes us with a case related by M. Merat at the Medical Society of Paris, in 1830,* where a man was suddenly affected, after a violent exertion, with a pulsating tumor in the neck, directly over the course of the carotid artery. Dubois examined it, and confirmed M. Merat's opinion that it was aneurism. Appropriate palliative treatment was followed, the health of the patient precluding a resort to operation. Death from internal disease followed shortly, and, on dissection, the tumor was found to be an enlargement of the cervical glands.

Howship (in his *Practical Remarks on the discrimination and appearances of Surgical Disease*, London, 1840) gives a case of scirrhus of the pylorus, which was taken for aneurism of the abdominal aorta. The tumor was of the size of a small orange, and seemed to expand after pressure, to pulsate and give the general

* Given in the "Trans. Medicales" for that year.

feel of an aneurism. The pulsation, in particular, was powerful. Another very similar case is related in connection with it. In the first, several medical men agreed it was an aneurism.

As an illustration on the other side, that is, where aneurism existed but the requisite pathognomonic signs were wanting,* two cases are given in the *Medical Times and Gazette* of January, 1860, where the disease affected the abdominal aorta. In neither case could the arterial whizzing be heard. Pain, strongly simulating that of lumbago, was felt in the lumbar region, and, on examination, the urine was found to be albuminous.

The aneurismal tumors were of considerable size—certainly large enough to yield more decided symptoms indicative of their nature, yet the true character of the disease was not disclosed until after death.

[To be continued.]

Selections from Medical Journals.

PROLAPSE OF THE FUNIS.—Dr. T. Gaillard Thomas, in a lecture on the prolapse of the funis, published in the *American Medical Monthly* for September, gives the following results of the postural treatment of this accident.

OBSTETRICIAN.	No. of Cases.	Failed.	Succeeded.	WHERE REPORTED.
Dr. Livingston, N. Y.	2	1	1	To the Author.
" G. T. Elliot, "	3	2	1	" "
" Garrish, "	1	1	—	Harveyan Circle.
" Vanderpool, "	1	1	—	To the Author.
" P. Van Buren, "	1	1	—	Academy of Medicine.
" Underhill, "	1	1	—	Obstetric Section, Academy of Medicine.
"	1	1	—	To the Author, by Dr. Bronson.
" Meminger, S. C.	1	—	1	" "
" J. R. Wood, N. Y.	1	—	1	Harveyan Circle.
" O. White, S. C.	1	—	1	Charleston Medical Journal.
" W. C. Rogers, Green Island, N. Y.	1	—	1	To the Author.
" Worster, N. Y.	1	—	1	" "
" Schmitt, "	1	—	1	" "
" Norton, "	1	—	1	N. Y. Medical Press.
" Ferguson, N. Y.	2	—	2	To the Author.
" Ramsbotham, London	2	—	2	Reported to the Author, by Wm. Hall,
" Thomas, N. Y.	4	—	4	Wilmington, N. C.
" Brauder, "	3	—	3	Cincinnati Lancet.
" Hawthorne, N. O.	1	—	1	To the Author.
" Furman, N. Y.	4	1	3	" "
" McLeod, "	3	1	2	" "
" Noeggerath, N. Y.	1	—	1	Contributions to Midwifery.
" Martin "	2	—	2	American Medical Times.
" Woodhull, N. Y.	1	—	1	To the Author.
" Elsherg, "	1	—	1	" "
" Bibbins, "	1	—	1	" "
" W. T. Brown, "	1	—	1	Cincinnati Observer.
" Mendenhall, Ohio	3	—	3	Cincinnati Lancet.
" A. K. Gardner, N. Y.	1	—	1	" "
Total	47	10	37	

* Dr. Barker, of St. Thomas, in the *Med.-Chirurg. Trans.*, Vol. 28th, gives two cases of aneurism, in which there was neither pulsation nor abnormal sound. One was a large aneurism of the arch of the aorta, not discovered till after death; the other, one of the renal artery, discovered the day before.

"During the last two years, I have not, I regret to say, industriously collected cases treated in this manner. Such as have been reported to me, I here exhibit to you by a table; guarding you, however, against the belief that a full *résumé* of the results of the method are therein embodied. It will, at least, serve to show you that in many cases the method has been successful, and I own to the intensest gratification in thus recording the number of lives which have been saved by it.

"In justice to the method which I am now describing to you (and which I have called the 'postural treatment'), I must say that several of the cases of failure were due to the improper manner in which it was followed out, or to some such complication as malpresentation, deformed pelvis, or placenta prævia. This, however, by no means applies to all.

LEAD IN THE TREATMENT OF PHTHISIS.—Remedies for phthisis, if recommended with the least show of authority, are always eagerly sought for. The number of cases of recovery from tubercular disorganization of the lungs is sufficient to keep alive in the minds of the professional as well as unprofessional public, the hope that some cure may at last be found for it. By the *London Lancet* for August 17th, we see that M. Beau places some confidence, at the present time, in the use of lead in the treatment of this disease. Its Paris correspondent writes, in speaking of the last clinical lecture of M. Beau—

"Phthisis," he said, "has been cured by all sorts of methods and in all sorts of ways; the fact being that, as this malady depends upon the reciprocal action of a diathesis and of globular anæmia, the remedy which is able to oppose the progress of the latter condition may not only prevent the disease from making further inroads on the system, but also contribute to the healing of such lesions as already exist. My intention is not certainly to enumerate all the means for treating consumption which have in turn been extolled and employed against this malady; you will find them detailed at length in the treatise of Baumès, of Montpellier, published in 1805. I shall limit myself to a few." After mentioning sea voyages, horse exercise, southern climates, emetics, chloride of sodium, asses' milk, Iceland moss, conserve of roses, quinine, fir-sprouts, watercress, sulphur, sulphureous waters, cod-liver oil, iodine, turtle-soup, snail-broth, oysters, strawberries in great quantities, hydrotherapy, the hypophosphites, and steel, the lecturer at last arrived at his favorite remedy—lead. "The employment of lead," he said, "in the treatment of tubercular consumption is not new. The idea is a borrowed one. What is new, is the manner in which I administer it, and in which I have understood its action. I must first tell you how I was in the onset induced to employ it. Starting from the theory, which I hold in common with many other observers, that the development of tubercle is favored by the anæmic state, I had been struck by the fact that the workmen employed in establishments where lead is much handled, although anæmic and cachectic to the last degree, very rarely present symptoms of tubercular deposit in the lungs. During a period of six or seven years at the Hôpital Cochin, amongst the many patients whom I treated for lead poisoning, I never saw a single case of phthisis. Once only, in the lungs of a house-painter, I met with tubercle; but I subsequently ascertained that this man had never had any of the signs of the saturnine affection. I went a step further, and inquired into the diseases usually met with in the trades habitually working with lead, and found that cough among operatives of this class was of rare occurrence. I began then to think within myself that if lead could prevent, it might also very possibly cure, phthisis, and was much tempted to make the experiment, but waited for further evidence, and was presently emboldened by an accidental occurrence. Shortly after my entry into the service of the Charité, a man, affected with lead colic, fell under my observation. On examining his chest I found evident symptoms of tubercular deposit; and, on inquiry, ascertained that the patient had been consumptive for years. Find-

ing himself without work, this man had taken a job at the lead works at Clichy, and there had caught his colic. He assured me that since his seizure both cough and expectoration had diminished; in fact, so much so as to have made him think it useless to direct my attention to the state of his lungs. He left the hospital some time afterwards, cured of his colic, and with considerable improvement of the pulmonary symptoms. In the case of a second patient, who shortly afterwards entered my wards, I was informed that the signs of consumption, held in abeyance during repeated attacks of lead colic, had reappeared each time that the latter malady had been removed. I endeavored, on the verification of this fact in my hospital service, to reproduce the saturnine saturation when the phthisis seemed inclined to gain ground, and succeeded beyond my expectations in arresting its progress on several occasions. Such were the incidents which led me to the adoption of my present method of treatment, and *the results I have obtained are not of a nature to justify me in laying the method aside.* The following is the manner in which I employ this drug:—I begin by administering an emetic, in order to arouse the stomach from the state of torpor which it is so common to meet with, either as cause or effect, in tubercular phthisis. After the lapse of a week or thereabouts, I commence the lead (I prefer the carbonate, as being better borne by the stomach than the acetate), in pills of two grains each. The dose is taken at first once a day, then twice, and so on, until six pills, or twelve grains of the lead, are swallowed within the course of the twenty-four hours; the best time for administration being before each repast, as the drug is at that moment less likely to cause vomiting. This treatment must be continued until a sufficient saturnine impregnation has taken place, a generous diet being allowed the patient at the same time."

M. Beau has added an appendix to his two former lectures during the course of the week, which, as it completes his previous observations on the *lead* treatment of phthisis, I think I may interest your readers by recording. "With regard to the first effects," he says, "noticeable on the employment of lead in dealing with consumption, the most favorable is the amelioration of the cough and expectoration. Sometimes at the end of two, at others at the end of eight or ten days (the difference of time depending on individual peculiarity), the cough, from being incessant, becomes less frequent, and allows the sufferer some respite, enabling him to sleep. The expectoration, from being abundant and purulent in nature, diminishes and becomes less copious, and of a mucous character. This is not all; you will remember one particular character of the tubercular sputum, long ago recognized by Fouquier—namely, that in passing from the larynx to the mouth, it almost invariably, by virtue of a specially irritating property it possesses, irritates the pharynx, and produces an effort of vomiting. Another mark of the progress and success of the saturnine treatment, is precisely the cessation of this retching during expectoration. At a variable period, also, and consequent upon the amelioration in the cough and sputa, the physical signs furnished by auscultation likewise bear testimony to diminished activity in the pulmonary suppuration. The subclavicular pains diminish, and can hardly be recalled by pressure with the finger, and the nocturnal hectic fever very generally disappears entirely. I say the *nocturnal* fever advisedly; for you know the grave prognostic which attaches to the continued form of fever when occurring in this disease. With regard to the *physiological* effects of lead on the system, the first remarked is, for the most part, loss of appetite. There are, however, certain cases in which the administration of this drug seems rather to excite than to repress the digestive functions and desire for food, and such are certainly the most favorable; for here, in addition to the advantages afforded by the special action of the medicine, we have the concurrence of an active nutrition. Moreover, it is to be noted, that those patients in whom the functions of the stomach remain undisturbed, enjoy perfect immunity from the poisonous effects of the remedy. Such cases are, however, too rare to be counted on. In addition to the loss of appetite, gastralgia very generally supervenes, and occasionally, but rarely, vomiting, dry cough, and dyspnoea, the latter symptoms being exclusively of a gastric origin, and unconnected with increase of morbid action in the lung. The colic produced by the administration of lead for a therapeutical purpose, differs from that witnessed in workmen who have incurred saturnine intoxication in the exercise of their trade, in one important particular—namely, that whilst in

the first diarrhœa is very generally induced, in the second case obstinate constipation for the most part exists. The blue line on the gums is another effect of the lead treatment, and appears from the tenth to the fifteenth day. Some patients there are, however, who, though presenting the other indications of saturnine saturation, are without this particular sign of constitutional affection. I believe that the blue line is only seen when there is some superficial erosion or ulceration of the margins of the gum. The predominating symptom of the therapeutic intoxication, and that which is the most constant of all, is pain occurring in certain portions of the body. This pain, which appears at variable periods during the treatment, as early sometimes as the second, and rarely later than the tenth day, is occasionally present in the trunk, but mostly in the arms and legs. It is either of a shooting, darting description, or may resemble the pressure of a heavy weight, or the constriction of a metallic ring round the limbs. The physician at the same time must be careful to distinguish between the pains symptomatic of phthisis and those induced by the treatment." M. Beau likewise informs us that he never witnessed either epilepsy or those other brain symptoms occasionally met with amongst lead-workers, and ends by saying that he believes the cases of phthisis are very rare in which a saturnine treatment will not be found useful in either arresting or retarding the progress of the disease.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE MIDDLESEX EAST (MASS.) DISTRICT MEDICAL SOCIETY. BY E. CUTTER, M.D., SECRETARY.

LEXINGTON, SEPT. 18th, 1861.—The Society met at the house of Howland Holmes, M.D., at 7½, P.M.

Dr. CHAPIN, of Winchester, introduced an account of a case, now under his treatment, of an intemperate man who had poisoned a small sore upon his wrist in skinning an ox. The animal had died from disease. In a few days after, the sore was of a peculiar slate color, serous and umbilicated, and looking very much like an irregular vaccine pustule. There was a good deal of burning heat, with deep and severe pain, besides a reddened line up the arm, and soreness in the axilla. No constitutional symptoms. Under the use of calomel and jalap purges, yeast poultices and tincture of iodine externally, the inflammation is extending, and an abscess is expected. From the time which had elapsed since the beginning of the complaint without its proving fatal, he thought it could not be considered malignant carbuncle.

Dr. B. CUTTER briefly related the details of four cases of malignant carbuncle which had occurred in his practice. They were characterized by great pain, swelling and sudden death. He also alluded to an interesting *post-mortem* examination of a case in which the diagnosis had been very obscure. The patient was a man, 32 years of age, who died after a sickness of more than six months, which was characterized by intense, almost continuous pain in various parts of the whole trunk, particularly in the region of the left kidney. There was softening and atrophy of the left testicle, and a small nodular tumor in the right testicle. After extreme emaciation, exhaustion and suffering, death ensued, despite the efforts of regular and irregular attendants, none of whom conjectured the true cause of the disease. Upon examination, there was found in the abdomen a tumor about eight inches square and from two to four inches in thick-

ness. It weighed $3\frac{1}{4}$ pounds, and saddled the lumbar vertebræ, to which it was firmly adherent. It displaced laterally both kidneys, which were atrophied. The tumor was of a reddish hue on the periphery, and internally reddish white. It was of a firm consistence. Masses of the same character, varying in size from the one above mentioned to a buck-shot, were found free, and engaged in and upon nearly every viscus of the trunk. Even the muscular and bony tissues were invaded. The diagnosis of carcinoma was sustained by the microscope.

The subject of discussion for the evening—*Kerosolene*—was then taken up.

Dr. S. A. TOOTHAKER, of Wilmington, said that he had administered the article, which was distributed at the last meeting, once, with the most satisfactory results. It acted quickly; there was no suffocative difficulty, no nausea and no convulsions. The patient was a young man who had just recovered from tonsillitis, and the operation was for the extraction of a tooth. Upon inhalation, he began to laugh, and opened his mouth in such a manner as to afford an excellent opportunity to apply the forceps. The tooth came very hard. The man made some noise, and in a minute or two recovered his sensibilities. He knew nothing of the extraction, except by the blood in his mouth. He was very lively and "chipper," and expressed himself as having had a pleasant dream. Quantity administered, one and a half fluid ounces. Whole time occupied, five to six minutes.

Dr. H. P. WAKEFIELD, of Reading, gave it twice to one patient with success. He was a shoemaker, who had hurt two of his fingers by working on "army shoes." At the seats of injury, there was pus. *Kerosolene* was administered upon a cloth. He came under its influence very readily, and "lost himself." He was inclined to laugh, but he would not keep still, and as the Doctor had no assistant, the operation of opening the abscesses was deferred. He soon recovered, and was dismissed to return again with a friend. He did so, and the *kerosolene* was given as before. He readily came under it, but not to insensibility. The assistant held the wrist, and both fingers were opened to the bone. He seemed just to feel it. On coming to himself, he said he did not suffer anything. He passed from the influence of the *kerosolene* as readily as he came under it. Quantity employed in both trials, three fluid ounces. No nausea, no suffocative difficulty, nor unpleasant effect. Dr. Wakefield thinks the *kerosolene* more powerful than chloroform.

Dr. R. L. HONGDON, of West Cambridge, employed the *kerosolene* received at the last meeting in a case of Barton's fracture of the radius. The patient went quickly off to sleep. There was no change in the pulse, and sensibility was recovered sooner than with ether, and the patient came under it more easily. Quantity administered, two fluid ounces. He also gave it to a woman for the extraction of four teeth, with success. In fact, the Doctor expressed the highest satisfaction with the results of his trials.

Dr. A. CHAPIN stated that he had taken the *kerosolene* himself, with the effect of sudden anæsthesia. He also remarked that he had given it to a lapdog. A sponge and the dog's head were placed in a coat-sleeve, and the *kerosolene* poured upon the sponge. The animal came under it kindly, easily and quickly. Compared with the action of ether and chloroform upon this class of animals, the Doctor stated that

kerosolene had, in this case, marked advantage, in the ease with which it was taken, and in the speediness of its action. There was no suffocation, no convulsions. The dog never "came to," as it was killed by a hatchet.

Dr. E. CUTTER stated that he had given kerosolene successfully to a frog, for microscopical purposes. It produced a stasis of the blood in the capillaries of the web of the foot; perhaps no more than has occurred with other anæsthetics.

Some discussion arose upon the proper pronunciation of the word, some calling it kè-ro-so-lene, and others ke-ròs-o-lene. Upon motion, Dr. Chapin was appointed to settle the orthoepy of the word and to report at the next meeting of the Society, when kerosolene would again be the subject of report and discussion.

The supper provided by the host was most excellent, ample and substantial.

At 10.45, P.M., the Society adjourned.

N. B.—The Downer Kerosene Oil Co., No. 76 Water St., Boston, will furnish the kerosolene gratis to those physicians who apply for it in person or by letter.

EXTRACTS FROM THE RECORDS OF THE RHODE ISLAND MEDICAL SOCIETY.

BY D. HOMER BATCHELDER, M.D., SECRETARY PRO TEM.

THE first quarterly meeting was held at the "Franklin Society Rooms," Providence, on Wednesday, the 2d inst., at 10 o'clock, A. M. The Society was called to order as usual, by Dr. C. W. Parsons, the President; and in the absence of the Recording Secretary as surgeon in one of the R. I. regiments, D. Homer Batchelder, M.D., of Cranston, was elected Secretary *pro tem*.

The Society then listened, as the first business, to a report by Dr. Turner, of Newport (one of the Vice Presidents), of one or more cases of *mammillaris* glands in the region of the axilla, secreting milk at the time of confinement.

A very interesting case of rupture of the heart was next reported by Dr. Augustine A. Mann, of Valley Falls. This was an extremely interesting and rather unique case; as life was, subsequently to the rupture, prolonged a sufficient length of time for the wound to take on suppuration. Dr. Mann exhibited the organ.

Dr. Newell, of Providence, reported a case of rupture of the heart, with an exhibition of the organ also.

Following the above reports, a very interesting discussion took place upon the subject of "fatty degeneration" of the heart, on which, opinions were freely expressed.

A very able paper was next read on the subject of "Cholera Infantum," by Dr. Owen W. Brown, of Providence.

Several letters were read by the President from absent members, in relation to dysentery, as it has prevailed in certain localities the present year. A paper was also read by Dr. D. H. Batchelder on the same subject.

An encephaloid tumor was exhibited by Dr. King, of Newport. This tumor had been removed the day previous by Dr. K. from a lady 74 years of age. It weighed, after removal, eleven pounds, and contained a sac holding a quart or more of fluid, which escaped at the time of the removal. It was a fine specimen of encephaloid structure.

A resolution was offered, and referred to a select committee, for the future establishment of a Comparative and Pathological Museum.

The Society passed a resolution to appoint and send delegates to other State Medical Societies; and Dr. Edwin M. Snow was elected a delegate to attend the annual meeting of the Vermont Medical Society, to be holden on the 23d inst.

One other paper was read by Dr. Geo. S. Collins, of Providence—eliciting a good degree of interest—on diphtheria.

The meeting was interspersed with interesting and friendly discussions, and, on the whole, was not without profit to the members.

Cranston, R. I., Sept. 3d, 1861.

Army Medical Intelligence.

The following are extracts from letters received, during the last week, from surgeons now in the field:—

BALTIMORE, Sept. 28th, 1861.

To the Surgeon General.

SIR,—I have the satisfaction of informing you that the health of the troops of this regiment, and the sanitary condition of the camp, are as favorable as when I last wrote you; indeed, we are able to improve more or less daily in hygiene. The whole number of patients in hospital to-day is ten; of these, five are from the Battery (with typhoid fever); we have but *one* man seriously sick—Capt. Morrill—who has the same disease; but I have no doubt that he will recover.

Respectfully,

ISAAC F. GALLOUPE, *Surg. 17th Mass. Vol.*

SPRINGFIELD, MASS., Oct. 5th, 1861.

To the Surgeon General.

SIR,—Camp Reed was established on Saturday, Sept. 21. The following night was cold and rainy; but on Monday, the 23d, the weather was again fair, and, except from a shower on the afternoon of the 26th ult., there has been no interruption of fine weather until to-day, when we are again annoyed by an easterly wind and occasional rain.

Lt. Col. Lyman has been in command, and has been constantly on the ground, sharing the rations and occupying similar quarters to those of the men. He has shown an intelligent interest in everything concerning the hygienic welfare of the regiment, and has lent a willing ear to all my suggestions on this point. I beg leave to call attention to a newspaper article which I transmit herewith, in which his merits in this respect are not over stated.

For the first week the force on the ground averaged about 300; for the last week, from 600 to 700. Last night I understood there were 752 rank and file in camp.

For the first few days after their arrival, the men were very subject to slight diarrhœa, and there were some cases aggravated by neglect, but still very amenable to treatment. The men unprovided with flannel were most liable to diarrhœa. In Co. F (Westfield), 100 strong, scarcely a man escaped. I attributed this to the delay in mustering in this company, and procuring suitable under-garments from the quarter-master.

On the first day I pitched three small tents and provided each of them with two bunks, rudely made by the carpenters at work on the ground. Each consisted of two lateral planks six and a half feet long, six inches wide, connected by slats two feet in length. These, covered with straw and two blankets, made quite comfortable berths. At the beginning of the second week I was able to exchange the small ill-ventilated tents for large ones. The number of bunks has been adequate up to the present time. Opposite the intervals of the three hospital tents, I located two tents—one for the steward, Mr. Fuller, and one for a dispensary and office. The intervening space was spaded up, rolled hard, swept daily, and patrolled by a regular sentinel, to guard the sick from disturbance. The hospital camp was designated by a red flag during the day, and a red lantern at night.

The sick list has averaged daily five in hospital—thirty at quarters. The surgeon's call has been at 9, A. M., daily, at which time the first sergeants of companies have reported at the dispensary, accompanied by their sick. At 10, daily, I have reported to the commander, according to the form in the army regulations. I have also kept a case-book in due form, and notified, on the first day, the quarter-master that I should expect the rations of all hospital patients to be credited to the hospital fund, an arrangement in which he cordially acquiesced.

I have had daily a large tray of rice served at the hospital, with abundance of flax-seed tea; and it has been sufficient, in a majority of the cases of diarrhœa, to enforce abstinence, rest, and the wearing of flannel, with a single dose of paregoric, mist. cretæ, mist. sodæ, rhubarb or castor oil with laudanum. We have rarely had the diarrhœa patients on our hands more than twenty-four hours. We have commonly had about twenty men daily at our rice dinners. The hospital cook musters at surgeon's call to get a memorandum of the number he is to serve. I will not enlarge upon the other forms of slight sickness we have had, as they will appear in my formal report.

Pie and candy venders have been excluded from the camp, in obedience to my representations to Col. Lyman.

On the right of the camp was a stagnant pool, two rods wide. I suggested that it should be drained, and the Lt. Colonel detached 100 men, who, working in three reliefs, dug a ditch one hundred feet long and six feet deep, emptying the earth from the trench in the upper end of the pool—finally covering over the space occupied by the pool so that it was a firm marching ground. The ditch was then filled up. The whole operation lasted but two hours.

A bathing tent was established on the hill-side, and the men have orders to bathe twice a week. The officers have made arrangements to provide all the men with towels and combs. I believe that the men are generally attentive to personal cleanliness. Only five have been detected with vermin. They were sequestered in a "lazaretto-tent" outside the camp; treated with inunctions and sublimate lotions and soap-suds twice daily till they were thoroughly cleansed. One escaped into camp, and was taken back by an armed guard and treated to aloes and jalap in powder.

The police of the camp has been good. The sinks have been daily covered in with earth; the straw and blankets aired; the tents re-pitched once each week. The kitchens are supplied with drains, and refuse matters left about here or at the tents have elicited a speedy rebuke from the police guard.

On the whole, the camp has been healthy and orderly.

During the fortnight we have been in camp, I have spent the night at my house, half a mile distant. I have reported at from 7 to 8½, A.M., and remained from 7 till 10, P.M. I have examined over seven hundred recruits. As the Colonel, Major, Adjutant, and Quartermaster-sergeant have been absent, much extra duty has devolved on the Lt. Colonel, and I have endeavored to assist him.

With much respect, sincerely yours,

GEORGE A. OTIS, Jr., *Surg. 27th Regt.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 10, 1861.

THE papers of the Sanitary Commission recently appointed by the United States government, a collection of which has been made and printed, attest the well-directed and thus far successful efforts of this body. The increased attention which has of late been given to hygiene, and the peculiar and unprecedented circumstances attending the present civil conflict, by which large masses of undisciplined men have been suddenly brought together, for the most part totally ignorant of the sanitary principles and laws so necessary to their physical and moral health, suggested an organization from which much positive good may be reasonably anticipated. Similar organizations, it is true, have existed before, both in the Crimean and Indian campaigns, and had proved to the world the importance of sanitary measures in preventing and checking the ravages of disease, and in promoting generally the well being of those exposed, perhaps for the first time, to the discomforts and morbid influences of camp life. We cannot, however, but regard the prompt and efficient efforts which have been taken in this direction thus early in the present war, as one of the most remarkable features of the crisis.

On the 18th of May last, a petition was presented to the Secretary of War, signed by a committee of gentlemen, representing three humane associations in the city of New York—the Woman's Central Association of Relief for the Sick and Wounded of the Army, the Advisory Committee of the Board of Physicians and Surgeons of the Hospitals of New York, and the New York Medical Association for furnishing Hospital Supplies in aid of the Army, asking for the appointment of a mixed commission of civilians acquainted with sanitary matters, medical men and military officers, whose duty it should be to ascertain the best means of methodizing, and to reduce to practical service, the now undirected benevolence of the people towards the army, so as to bring to bear upon the health, comfort and *morale* of the troops "the fullest and ripest teachings of sanitary science in its application to military life." It was expressly stated that no pecuniary remuneration from the government should be asked, and that the Committee only sought the official recognition and moral countenance of the government in the performance of its various duties, together with such aid as the Medical Bureau and War Department might from time to time have opportunity to furnish.

The petition having received the sanction and support of the Medical Bureau by an official communication to the War Department from

the Surgeon General, a reply was received from the Secretary of War, on the 9th of June, approving the plan proposed, and giving the Commission an official existence. A plan of organization was matured, and also approved, and the active duties of the Commission were at once entered upon.

The specific objects proposed by the Commission refer, 1st, To the more rigorous application of just rules and principles to recruiting and inspection laws, by which the *material*, both of officers and men, may be raised, as nearly as possible, to the army standard; 2d, To the subject of outfit, cleanliness, precautions against damp, cold, heat, malaria, inspection, and generally to the comfort and health of the volunteers; 3d, To the care of the sick; this, of course, including the whole subject of hospital organization, and everything appertaining thereto.

In order to carry out these objects, the Commission divided itself into two branches, one of *Inquiry*, and the other of *Advice*; the labor of each of which devolved upon three sub-committees. We have not the space here to enlarge upon the details of the plans and organization of this Board. It is sufficient to say that the most important, as well as probably the most laborious duty must necessarily fall upon those appointed to visit the various camps. These travelling inspectors, several of whom have already been appointed, act under detailed instructions, and are required to report weekly to the Secretary of the Commission, resident at Washington. Their duties are generally to visit the "camps, barracks, quarters, and regimental hospitals, systematically and regularly, with a view to discover and remedy defects in their drainage, ventilation, &c., in the quality of food and water supplied the men, in the system (if any) of camp cooking, in clothing, camp police, medicines, bedding, and hospital stores, in the supply of disinfectants, and in every other particular by which the health of the troops can be affected." It is calculated that with an army of 300,000 men in the field, no less than twenty men specially qualified would be needed, and that a sum of sixty thousand dollars would be necessary to defray the expenses of such service. To meet this demand, appeals have been made by the Commission by addressing the officers of life insurance companies, and the public through other channels, and when the direct bearing of the sanitary measures proposed upon the success of the campaign is considered, little doubt can remain of the economy of the outlay.

From the reports of the Inspectors, three or four of which appear in the transactions of the Commission, it is evident that much is to be accomplished, although we find, on the whole, a more favorable condition than we had expected. There would seem to have been, in one instance at least, the grossest negligence in the selection of the medical officers of a regiment. We quote the following from the report:—

"There is one surgeon and one assistant, father and son, who were appointed by the colonel, and have not been examined by any medical board. The * * * informed me that the former had been a barber in * * *, and an occasional cupper and leecher, and had no medical degree. The son's medical education was also doubted. Both had evidently failed to obtain the full confidence of the regiment. On examining the file of prescriptions at the hospital, I discovered that they were rudely written, and indicated a treatment, as they consisted chiefly of tartar emetic, ipecacuanha, and epsom salts, hardly favorable to the cure of the prevailing diarrhoea and dysenteries.

"While remaining to dine in camp, the regiment returned from the city, whither they had been marched to receive at the arsenal a supply of new muskets. Some time after, a messenger came in declaring that many of the men had been left on the roadside, where they had fallen exhausted with the heat and fatigue. Great excitement ensued in camp, and complaints were uttered against the colonel for having marched his men during the heat of the day, when the march might have been postponed, as its motive was not pressing, until evening. The chief surgeon, who had re-

mained in camp, started out to find the men who had been left behind. I followed soon after, and had not proceeded very far on the road when I met him returning to camp with his son, who had accompanied the regiment on its march. The latter, on being introduced to me by his father, said that there was nothing the matter with the men he had left behind on the roadside, but a little fatigue. I expostulated with him upon abandoning his men, and urged him, for his own sake, to return. He followed my advice, and on reaching the ground we found some forty men lying near the road. All were evidently greatly fatigued, and some half dozen were suffering from sunstroke. With some whiskey and iced water, with which we had provided ourselves, we soon succeeded in re-animating the sick, and refreshing the rest. The chief surgeon, in the meantime, came back with a homœopathic medicine box, and began administering homœopathic doses promiscuously to the sick and well."

We regret to be obliged to add that this is by no means a solitary instance of the utter incapacity of the surgeons appointed. Within a short time, the responsible post of Brigade Surgeon has been conferred upon a man who had, until within a few months, kept a drinking saloon, who had studied medicine but a short time, and had never attended a course of medical lectures. For such negligence there is no excuse, and the protest of the profession in New Jersey, from whence this distinguished officer comes, is an evidence of the indignity felt by its members on account of such an appointment.

That much good may be accomplished by this Commission we have no doubt, but much will depend upon perfect harmony of action between it and the Medical Department of the government, as well as upon the competency of its members, who should be appointed with sole reference to their fitness for the place, and not, as has been too often the case in other instances, upon the ground of political bias. Honest, disinterested effort cannot fail to be of lasting service to the country, and we trust, at least in the present struggle, that selfish motives, which are so apt to be taken for true patriotism, will not be allowed to interfere with the action of the government, which, to be successful, demands the utmost promptness, decision and vigor.

In designating the position of Brigade Surgeons, in the JOURNAL of the 12th ult., that of Dr. Geo. H. Lyman, of this city, was inadvertently omitted. He has been appointed Brigade Surgeon and Medical Director of Porter's Division of the Army of the Potomac, in Gen. Martindale's Brigade, and is stationed at Fort Corcoran.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 5th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	48	39	87
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	43.0	41.0	84.0
Average corrected to increased population, . . . . .	..	..	93.2
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
10	8	0	2	6	0	5	3	0

COMMUNICATIONS RECEIVED.—Dr. Willson's communication will appear next week.

BOOKS RECEIVED.—Medical Jurisprudence by Alfred Swaine Taylor, M.D., F.R.S., F.R.C.P., &c., Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Fifth American from Seventh London Edition. Blanchard & Lea, Philadelphia. (From the Publishers.)

MARRIED.—At Walpole, 6th inst., S. E. Stone, M.D., Assistant Surgeon of the 23d Mass. Regiment, to Miss Sarah E. Hawes.

DEATHS IN BOSTON for the week ending Saturday noon, October 5th, 87. Males, 48—Females, 39.—Accidents, 4—apoplexy, 2—inflammation of the bowels, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 2—cholera infantum, 8—cholera morbus, 1—consumption, 10—convulsions, 2—diarrhœa, 1—dropsy, 2—dropsy of the brain, 7—dysentery, 5—eczema, 1—scarlet fever, 2—typhoid fever, 3—infantile disease, 3—inflammation of the lungs, 6—marasmus, 5—old age, 2—paralysis, 1—premature birth, 4—puerperal disease, 2—unknown, 4—whooping cough, 3.

Under 5 years of age, 50—between 5 and 20 years, 3—between 20 and 40 years, 18—between 40 and 60 years, 9—above 60 years, 7. Born in the United States, 66—Ireland, 17—other places, 4.

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ACTION OF OPIUM ON THE GENITO-URINARY ORGANS.

BY GEO. B. WILLSON, M.D., PORT HURON, MICH.

[Communicated for the Boston Medical and Surgical Journal.]

IN the JOURNAL of Sept. 26th, Dr. Woodward, of Illinois, expresses the opinion that opium and its compounds are diuretics. My experience corroborates that of Dr. W., and I have been satisfied for a few years past that opium, or morphia rather, in small doses, was one of the most reliable diuretics that a physician generally carries about him. It is, however, a diuretic merely, and does not increase the solid constituents of the urine except incidentally. This, I perceive, Dr. W. suspects. He has omitted one marked feature in its action upon the bladder, or upon the expulsive muscles of that viscus, viz., the partial paralysis it produces when given in large doses, or in moderate doses frequently repeated. I have often seen such paralysis of the muscles produced, by one third of a grain of acetate of morphia, given every two hours, that a catheter had to be passed to relieve the patient. This more frequently occurs in patients unaccustomed to its use. This suggests something with regard to spts. nit. dule., of which I shall speak farther on.

As to Dr. W.'s opinion, that opium acts upon the kidneys by relaxing their tension, I cannot agree with him. Opium relieves *general* irritability for a time at least, but that its diuretic effect is due to this property is questionable; for Dr. W., or any one else who has observed its diuretic effect, must also have observed that *during that action the tolerance of the bladder is diminished*. The patient has to "make water" much oftener than usual, and in smaller quantities than usual. With one of my patients, I endeavored to ascertain how much this irritability of the bladder was increased, and I measured his urine each time he voided it, making several experiments with him. I found that the quantity of urine passed each time, while under the influence of morphia, varied from two ounces to six; but when he was not under the influence of the drug, the quantity varied from six to ten ounces. Though I never measured the quantity in any but this case, yet I have observed that,

almost invariably, the tolerance of the bladder has been diminished by the action of the medicine; and I avoid its use in vesical disease.

The diuretic action of morphia is the second effect it produces, and is generally observed in from 15 to 25 minutes after its administration; or about the same time as its third and fourth, or anodyne and exhilarant effects. Its first action is an injection of the capillaries, and is known by a sensation of heat, and flushing of the surface. Its diuretic action, in my opinion, instead of being due to its sedation, is, on the contrary, the effect of its *irritation* as it is excreted by the kidneys. It acts upon the kidneys, the skin, and every other part by which it is excreted, as a direct irritant. The itching of the skin produced by it, where it has not been sufficiently diluted with sweat, is familiar to every body. The tickling which it at first produces in the bronchial membrane, before its excretion is accompanied with the thick yellow phlegm which soon envelopes it, is not so familiar to observers, but I have noticed it repeatedly. These are instances of its irritant action, and its diuretic effect depends on the same property. It acts upon the kidneys as a direct irritant, and thus stimulates them to increased secretion of water, simply; just as iodine, bromine, digitalis, and the like, act. The same effect is produced by quinine, caffeine, strychnine, and other alkaloids; as every body, who has used them much, knows. Morphine is therefore what Dr. Golding Bird would call a *renal hydragogue*, in contradistinction to *renal depurants*. The former increases the watery portions, only, of the urine; the latter increase the solids also.

Now with regard to the hyponitrite of protoxide of ethyle and spirit of nitric ether, I will first say that the article which we use so much under the name of "sweet spirit of nitre" is neither one nor the other of these. The adulteration has been carried to such an extent, that the original article is now almost entirely superseded by a substitute which seems to be a mixture of alcohol, ether, and something else. Its composition I do not know, but I know that we use the article and call it *sweet spirit of nitre*, which is perhaps better than to retain the chemical name of the original under the circumstances. The sweet spirit of nitre now in use seems to answer the purpose of the genuine article quite well, viz., that of a diffusible stimulant, or a febrifuge diuretic, according to its mode of administration. This drug is more commonly used than any other as a diuretic, and yet I think that, as a renal hydragogue, it is inferior to many of our common articles of that class—very little better, in fact, than any of the alcoholic beverages, and far inferior to the juice of water-melon; while as a renal depurant it is of no use at all. Its effects upon the bladder, however, in enabling that viscus to expel its contents, are, I believe, both marked and valuable. I have several times seen the administration of one or two full doses enable a patient to void urine in twenty minutes, after he had been for two or three hours tor-

mented with the effects of temporary paralysis of the bladder, produced by opium or its compounds. Its most marked benefits, so far as my use of it goes, have been, not in increasing urine, but in assisting its evacuation from the bladder, and allaying vesical irritability.

I now revert to Dr. Woodward's notion of the mode of diuretic action of opium, and also to that condition of the bladder which I have called *partial paralysis*. You will have observed that I have spoken of the retention of urine as being caused by paralysis of the bladder, or of the expulsory muscles. I have done so only for convenience; for I believe that the condition is not one of paralysis, but is really a *spastic contraction* of the sphincter of the neck of the bladder. This spastic contraction is often produced in a greater or less degree by irritating matters in the bladder, or an irritable condition of the prostate or urethra; in short, it is frequently the result of irritation. When it follows the use of opium, it is the result, in part, of the vesical irritability produced by the opium in the urine, and in part by the specific action of the drug on the muscle, producing tonic contraction of it in the same way that it is known to produce contraction of the pupil. We know that opium causes contraction of the pupil by contracting the semi-involuntary muscle, the iris; and I believe that the so-called paralysis is a similar contraction of the semi-involuntary vesical sphincter. The sweet spirit of nitre relieves this condition, and I think it does so by the relaxing and antispasmodic effect of the ether it contains. Certain it is, that no other medicine classed as a prominent diuretic will produce a flow of urine in such a case, and this leads me to attribute the relief to the antispasmodic rather than to a diuretic action. If this be so—if the flow of urine in this case is the result of an antispasmodic action; and if, as has been shown, opium acts as a direct irritant to the mucous surfaces during excretion; and, finally, if it produces spastic contraction of the iris and analogous muscles—then I do not see that Dr. Woodward's opinion of its *modus operandi* is tenable. In fact, I think it effectually disproves that opinion.

Before getting too far from the sweet spirit of nitre, I will state what I regard as pretty strong evidence, negatively, of the inefficiency of that drug as a diuretic, viz., that, in cases of suppression of urine, little or no confidence is placed in it as a remedy. I never knew or heard of a well-established case of anuria to have been benefited *in the least* by its use, but I have seen most valuable effects follow the administration of the thirtieth of a grain of digitalin, given every two hours.

The observation of Dr. W. with regard to the anaphrodisiac effects of opium is correct, as far as it goes, but he evidently has not seen its use persevered in, repeatedly, for several days or weeks at a time, and with intervals of several days or weeks. Its use, in this latter way, produces atonic spermatorrhœa during the

intervals. But I find I have lengthened this letter too much already; and as the effects of opium on the procreative functions would, for even a partial statement, require a very long letter of themselves, I shall not enter upon them.

Dr. W. says truly that "though opium has been known as a therapeutic agent from the earliest ages, it is not yet fully understood." We get but a very imperfect account of the physiological and therapeutical effects of opium from the books on *materia medica* and therapeutics. The writers of such books must be either culpably negligent, in omitting to mention some of the most important actions of opium, or most astoundingly obtuse in not having observed them. There is, in fact, no way at the present time in which a medical student can learn the actions and effects of opium, or how to use it to the best advantage. He has to learn its powers and uses for himself, after he has commenced practice. It is a shame and disgrace to the profession, that so important an article should be so little understood.

By the way, are you aware that opium is used as an abortifacient? It is a reliable one, if a person knows how to use it. But I had decided on not broaching its effects on the generative functions—so farewell.

Port Huron, Mich., Sept. 30, 1861.

A PRACTICAL ESSAY ON ANEURISM.

[Continued from page 198.]

THE STRUCTURE OF THE TUMOR AND PROGRESS OF THE DISEASE.

As the structure of the tumor varies with the progress of the disease, we embrace these two points under one head.

In examining closely into the peculiarities of the structure of the aneurismal tumor, we find that generally the whole periphery of the artery is implicated in the predisposing disease, and is more or less altered in form. In but comparatively a small number of cases does it lead to the expansion of the whole arterial tube mentioned before, and described by Guthrie as "preternatural dilatation." In the greater number, whilst it is somewhat enlarged, and its regular contour altered, it remains otherwise unaffected, and from one side proceeds the aneurismal tumor, communicating with the tube by an aperture which, in the later stages of the disease at least, seems small when compared either with the calibre of the vessel or with the size of the sac.

If the affection is recent, the three tunics of the artery are found whole, but thickened, inelastic, and frequently permeated by an atheromatous deposit. Still later, the inner ones yield, so that the outer cellular coat alone remains to the sac. This yielding or rupture of the internal coats is often a sudden thing, following some

exertion of the patient, and the tumor, after having been stationary, probably for some time, suddenly increases. The remaining tunic would soon follow the fate of the others, but we find an alteration in its nature—a deposit, apparently the result of inflammatory action, thickening and strengthening it, and frequently uniting it to the surrounding tissues, thus additionally fortifying it. What is left of the inner tunics, where they can be detected, is found to present a reticulated or open-work appearance, except around the original opening and around the mouth of any artery that may chance to open out of the aneurismal sac. Here there is found a well-defined and regularly circular disc of the internal tunic, generally preserving greatly its integrity—smooth and polished. This condition, we believe, was first described by Chassaignac. At other points, the internal tunic may hang loose into the cavity of the sac, as if torn in different directions, and presenting ragged and fringe-like edges.

The cavity of the sac is not simply a receptacle for the blood that is forced into it, but it is in later stages of the disease occupied by what has been generally described as a coagulum. This is not a homogeneous mass, but is formed of two distinct substances—coagulable lymph or fibrine, and coagulable red blood. This distinction, though not hitherto generally made by writers, will be readily allowed by any one who has carefully inspected the contents of an aneurismal sac. Wardrop, who has stated it more plainly and fully than any other, shows that these concretions are the result of two entirely different processes, and points out the importance of a discrimination between them in the treatment of the disease. Through this concretion of coagula the cavity passes, but always to one side, not through the middle. Any arteries given off from the tumor have a special channel provided for themselves in the midst of it.

The fibrinous concretion is found in concentric lamina, the greatest aggregate thickness of which is opposite the communication with the artery—towards which orifice the edges of the lamina thin off. The lamina are more or less easily separable from each other according, generally, to the age of the sac, and are denser towards its circumference, and as it grows older. Towards the centre, where they are in contact with the blood, they are soft, flocculent, and stained red by the blood, coagula of which are mixed with the fibrine. The inner surface of this concretion, where it makes a wall of the aneurismal cavity, is generally smooth and polished, and by some is said to be covered with a membrane continuous and identical with the lining membrane of the artery. The truth of this last statement we must for the present hold in abeyance. We cannot ourselves conceive of the generation of a normal membrane upon an adventitious deposit; but we find nothing in the works of the later pathologists, whose method of rigid examination would soon settle the question, to enlighten us upon the sub-

ject, and we have had no opportunity personally to make a microscopical examination of such a specimen.

The fibrinous concretion adheres very closely to the artery, giving rise to the belief in some that there is a vascular connection between the two. Wardrop considers the mass as bearing the same relation to the artery that the fibrous plug formed after the ligature of a vessel does. These, it has been shown, do have a communication with the vasa vasorum of the neighboring walls.

Differing greatly from these fibrinous lamina are the coagula of blood found in an aneurism. These are irregular in shape and in their place of deposition. Sometimes they are engaged between the lamina of fibrine, at others they appear as concretions around the loose edges of the lamina, and whilst these last seem to be the inevitable if not necessary constituents of an old aneurism, the coagula of blood appear to be rather accidental.

Though the above is a description of the commonest form of aneurism, there is a variety in which the phases differ somewhat. In this the previous disease seems to have had the effect to weaken the adhesion between the coats of the artery, particularly between the external and middle coat. The result is, that when the two inner tunics give way, the blood, instead of forcing its way onward against the outer coats, finds an easier diversion by insinuating itself between this and the middle one. Thus it passes up and down the artery, forming a long pouch parallel with it, and often more than half embracing it. Guthrie mentions one case where this pouch was full six inches long, and nearly surrounded the aorta, from which it sprung. To this variety, as a proper distinction, has been given the name of *dissecting aneurism*.

The growth of aneurismal tumors is by no means regularly progressive. The first distension of the arterial coats, when the aneurism commences thus, is gradual, but after reaching a certain point it may remain for some time without increase. And so when the disease commences by a sudden rupture of the arterial tunics, it speedily attains a certain size, varying according to the artery affected, and then may remain without increase for a longer or shorter time. The reason of this we cannot explain in every instance, but we may suppose that in some way either the force of the arterial current bearing against the walls is lessened—in a manner that an investigation of the laws of hydrostatics could alone make clear—or a resistance may be met with in the surrounding tissues which counteracts the force of the impulse. The progress of the tumor thus arrested may remain so for an indefinite time—there is no necessity in its nature for increment. Some fresh exertion, however, favoring an increase of the force of the current, or lessening for the moment the favoring resistance of the surrounding parts, may give it a fresh start, and the size of the cavity increases. Or, by steady pressure, absorption is induced,

and thus the opposing walls are weakened. In either case the yield may not be equal throughout the whole periphery of the tumor, but may be greater at particular points. In this case the aneurism assumes a nodulated form, or may take a growth very different in direction from that of its commencement. Thus, instead of coming nearer to the surface, it may push out laterally, under pressure of a fascia, and thus sometimes, as we shall presently show, effect a cure by pressing down upon and obliterating the artery from which it sprung.

In its later stages the growth of the aneurism is more slow than in its earlier, as a general rule, for then the fibrinous lamina take the impulse and distension by direct force, and the disease is thus much lessened. This, indeed, sometimes arrests the disease entirely. But at this period other forces are brought into play, which in some cases lead to a rapid increase of the tumor, and by its final bursting suddenly terminate the case. These are absorption and sloughing. The walls of the sac are thinned, and thus may yield by a sudden exertion, or, lessened in vitality by the pressure upon them, may slough and give way.

The actual period required for the course of an aneurism from its commencement to its termination is very variable, as may be supposed from the number of modifying circumstances that may affect it. The amount of disease in the artery, the general health of the patient—his habits of life, whether active or sedentary, regular or irregular—his circumstances of life, whether subjecting him to hard labor, or giving him an opportunity of favoring himself—his nervous impressibility, together with many accidental influences that can scarcely be enumerated, and certainly not accurately estimated, even in any given instance—all have a modifying effect that prevents us from making a reliable prognosis in any particular case, and utterly defies us in attaining a general average. As an illustration, we believe it is Hodgson who relates a case of aneurism of the popliteal artery that terminated fatally in three weeks by gradual progression. We have known an aneurism of the arch of the aorta terminate life in less than a month from its discovery; and another case of ours, under many disadvantages, lived nearly a year; while De Haen mentions an instance of the same form of disease requiring some seven years before it terminated.

TRAUMATIC OR FALSE ANEURISM.

Traumatic or false aneurism does not differ greatly from true aneurism in its history, except as to the first stages of the latter. These, of course, are wanting in the former. Some foreign body from without, or sometimes a portion of the system itself—a broken bone,* the sharp edge of a carious one, or, as we have lately

* Lisfranc, in his *Clinical Surgery*, gives one following fracture of the leg.

seen, a spicula of necrosed bone,* penetrates the artery, dividing its tunics to a greater or less extent. External hæmorrhage is prevented or arrested, as the case may be, by the elasticity, the tumefaction or the strength of the parts intermediate between the artery and the surface, but a pouch or sac is formed in the neighboring tissues. Those in immediate contact with the cavity are condensed so as to form for it fit walls, and then commences a pathological history of the affection precisely like that of true aneurism at the same stage—that is, after the rupture or absorption of all the tunics. The lamina of fibrine and the coagula of blood are identical, and the phases through which it passes, and its effects upon the surrounding parts, are so precisely like those of true aneurism as to make it entirely unnecessary to treat the affection separately.

EFFECTS OF ANEURISM UPON THE NEIGHBORING AND OTHER PARTS.

The effects of an aneurism upon the surrounding parts, as might be predicated from the circumscribed and non-malignant character of the disease, are such only as it produces by its bulk and pressure. The first causes displacements of the neighboring organs that are movable—continued pressure, particularly with resistance, causes absorption of them. Effects upon more distant parts are felt according to the nature and importance of those more immediately affected.

The result upon the nerves involved is at first an increase of sensibility, aching, dragging and violently acute pains; later a destruction of sensation, paralysis, with atrophy and absorption of the nervous cords themselves.

The muscles are pushed aside from their bed and proper line of traction. They, of course, are thus rendered useless, and as a necessary consequence in time become pale, flabby, atrophical or affected with fatty degeneration.

The bloodvessels and absorbents are flattened and rendered impervious. The result of this, as regards the arteries, has in some very rare cases been a sphacelus of the limb beyond, but the growth of the tumor being generally slow, nature has time to set up a compensatory endeavor, and the collateral arteries become enlarged and fitted to take upon themselves the functions of the one obliterated. The obstruction of the veins and absorbents leads much more frequently to trouble, causing great œdema and tumefaction of the limb beyond. In time this leads to disorganization of the tissues, and in several instances sphacelus has been a sequence of this condition.

The skin and subjacent cellular tissue partake in the general condition of the other tissues, being engorged and hardened—the

* In the Report of Surgical Cases treated in the Meath Hospital in 1833 (by W. H. Porter, reviewed in the Medico-Chirurgical Review for July, 1834), there is a case of aneurism caused by a necrosed bone. The man was aged 29, and of bad habits. His system was much exhausted, precluding an operation, and he died of sudden hæmorrhage.

skin often becoming rough and throwing off from it an increased quantity of epidermis.

The ligaments become thickened and unyielding, stiffening the joints; and when the disease has been of long standing these are sometimes found absorbed, their attachments broken up, and the bones they held together dislocated.

The bones, in early stages of interference from aneurismal tumors, resent the attack in increased vascularity and irritability, producing at times hardening, and sometimes enlargement of them. The secondary effect, or rather the result of the persistent pressure of the tumor, is, in some cases, ulceration, but still later, in all, an absorption of the osseous tissue. The femur has thus been found completely cut through. The vertebræ have been seen with the bodies almost entirely removed, though it is notable that in these cases the intervertebral elastic substance seemed to have had comparatively but little impression made upon it. We have also seen the sternum perforated, the ribs wasted, the clavicle divided, and these results effected with no appreciable suffering referable to the osseous tissue.

We must notice, also, the difference between the effect of the pressure of an aneurismal tumor upon a mucous and upon a serous surface, and the results following. It is simply that when pressure is made upon a serous surface, it becomes glued to the surface opposed to it and into contact with which it is forced by the pressure. Thus, a strong barrier is formed against the advance of the aneurism in that direction. With a mucous surface, no such union takes place, and the consequence is that the membrane yields, and thus often becomes the weakest point of the sac. So while we often have cases of aneurisms bursting into mucous canals or cavities, we very rarely find them opening into serous enclosures.

Of the organs within the cavities, it is scarcely necessary to say that they partake with others in the inconveniences of a neighboring aneurismal tumor. They are displaced as a first effect, with more or less embarrassment of their functions as the next. This embarrassment occurs sooner or later, according to the impressibility of the organ. The implication of other organs, and the damage to the rest of the system, are of course in direct ratio with the importance of the organ first or immediately affected.

It is scarce necessary to go into further details upon this point, as we take for granted that the reader's knowledge of physiology will, with but little exertion, bring to mind the effects we allude to. We may suggest that a tumor within the cranium, bearing upon a portion of the great nervous centre, will soon produce a paralysis of the organ supplied with nervous energy by that portion. Our note-book gives a case of aneurism at the occipito-temporal angle within the cranium, causing protrusion of the eye and

separation of the bones. This was cured by ligature of the common carotid.

In the neck, deglutition is embarrassed in many instances by actual pressure upon the œsophagus; but oftener an interference with the functions of the phrenic, glossopharyngeal and par vagum nerves is the particular form in which an aneurism in this region produces trouble.

In the chest, we have displacement of, and interference with, the important organs there, giving rise to dyspnoea and to imperfect oxydization of the blood.

Dr. Blakiston remarks that "aneurisms springing from the part of the aorta within the pericardium, or from the portion of the vessel comprised between the left bronchus and the diaphragm, usually run their course without producing serious results by concentric pressure." In the former instance, because they usually burst before they attain any great magnitude; in the latter, because even when acquiring great bulk they only interfere with "the bases of the lungs, the apex of the heart and the œsophagus."*

In the abdomen, besides the mechanical effects from bulk, pressure, &c., the secretions of the glands are arrested in their passage from the organs, and are re-absorbed into the system. We have, thus, jaundice† and uræmic poisoning induced, besides which, pressure upon the vena cava, or the trunks of the absorbents, results in œdema of the lower extremities.

Such is a brief sketch of what we may expect from aneurismal tumors in these various localities, but we do not pretend to have made the catalogue complete. We have only said enough to indicate the kind of sequence to look for.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

AUG. 26th. *Poisoning by Corrosive Sublimate*.—Dr. CABOT reported the case.

A young woman, about 25 years old, was brought to the Hospital at about 3 o'clock, A.M., Aug. 26th, vomiting and retching violently, breathing with great difficulty, and almost pulseless. The account given was, that she had been perfectly well till 6 o'clock the previous evening, when she suddenly became nauseated, and in half an hour vomited. No physician was called till 11 o'clock, when Dr. Seaverns, of Jamaica Plain, was summoned, who found the fauces inflamed and

* Practical Observations on Certain Diseases of the Chest, and on the Principles of Auscultation, by Peyton Blakiston, M.D. London. 8vo. 1848.

† In the Transactions of the Medical and Chirurgical Society (2d series, vol. vi.). Dr. Wilson gives two cases of aneurism of the superior mesenteric artery, in one of which jaundice was produced by pressure of the sac. In the other, vomiting of blood occurred frequently, but there was no direct communication between the cavity of the sac and the stomach or intestines. In both, there was severe and constant pain in the middle of the back.—Page 230.

the uvula much swollen. He cauterized the parts with nitrate of silver; but finding that the patient grew worse, he brought her in a carriage to the Hospital.

The patient was perfectly conscious on her arrival at the hospital, and had strength enough to walk to the water-closet with but slight assistance. She stated that she had been unwell for five weeks past, but did not describe her symptoms. The whole surface of the body and limbs, with the exception of the abdomen and inside of the thighs, was cold, but the patient complained of feeling hot, and of a burning pain in the lumbar region. Soon after her arrival she vomited some pure blood. As the girl seemed almost asphyxiated, Dr. Cabot was sent for, who opened the trachea, and inserted a large double canula, after which the breathing became perfectly free, and the pulse grew stronger and fuller. The patient now began to call for cold water in large quantities, and would almost refuse a smaller amount than a tumblerful. After the operation, she continued to vomit, with much retching, bringing up a bloody-looking fluid. She likewise called for the bed-pan, and used it frequently during the night. The dejections were for the most part fluid, containing apparently blood, mucous membrane and a thick scum. The dejections and matters vomited resembled each other, and were so peculiar that they were saved. The resonance of the chest was everywhere good, but sonorous râles were heard in all parts of it. The pulse soon began to fail again, and the skin grew more and more livid, until it became everywhere of a dusky hue, although the air passed in and out of the tube freely. She remained conscious till her death, at 10 o'clock, 25 minutes, A M.

At the *autopsy*, the anterior portion of the tongue was natural; the posterior portion was of a dark-brown color. Epiglottis somewhat swollen and stiff; for the most part of a dark, brownish-red color, with a small portion of the mucous membrane eroded. Lining membrane of trachea and bronchial tubes, to their smallest ramifications, of a dark reddish-brown color, and covered with a very thin, slate-colored substance. The submucous tissue was much injected with blood, and of a red color. The mucous membrane was shining and not friable.

Lungs, healthy.

Œsophagus. Mucous and submucous tissues in the same state as in the trachea, except that the mucous membrane was more friable.

Stomach, moderately distended, somewhat oedematous, externally. Peritoneal coat shining and healthy. No perforation. The upper (œsophageal) portion of mucous coat, for the space of four inches in diameter, was of the same color as that of the œsophagus. The pyloric portion, particularly at the depending part of the organ, was thickened, of a dark-brown color, and traversed by numerous high rugæ. The mucous and submucous tissues were almost gangrenous, and very friable. The stomach contained about seven ounces of dark, reddish-brown fluid.

Small intestines of a very pale pink color, externally, but polished and glistening. The mucous membrane was reddened from the pylorus to the cæcum. The reddening was most marked near the pylorus, but there were occasionally spots the size of a dollar, of a brown color, and almost gangrenous. The mucous and submucous tissues were not, on the whole, much inflamed.

Uterus. The organ was about 4 inches in length, and 2½ inches

through at the fundus. It was evidently enlarged : the neck appeared elongated, and the os was filled by a mucous plug, which hung out from the external orifice. On cutting the uterus open, the walls were found to be about half an inch thick. The horns, or rather the right and left corners of the fundus, each contained an ovum, a few weeks old. There was a corpus luteum in each ovary, and the orifices through which the ova escaped from the ovaries were plainly visible. Corpus luteum of a dark color, except a small portion of the circumference, which was yellow.

Heart normal, filled with blood which was partly coagulated.

Kidneys much injected : otherwise normal.

Liver and spleen normal.

The *breasts* were flaccid : the nipples of a brownish color, and the papillæ around them were enlarged.

[The chemical report of this case, by Dr. WHITE, has already appeared in the JOURNAL.—SECRETARY.]

SEPT. 9th. *Stricture of the Œsophagus*.—Dr. COTTING showed the parts, from a patient whom he had seen in consultation. A woman, æt. 47, had had dysphagia for ten or twelve years : for the last year she could swallow only liquids and soft food, and seemed finally to die from inanition. Several ineffectual attempts were made to pass an instrument, and shortly before death considerable force was used. The stricture commences quite abruptly about opposite the upper edge of the cricoid cartilage, is about one inch in length, and not more than three or four lines in circumference upon the inner surface, at the narrowest part. The parietes are firm to the feel, consist of a homogeneous, pearly white, condensed tissue, without any appearance of muscular structure, and, at the time of the dissection, cut like gristle. The mucous membrane, however, is continued over it, and seems to be very little altered in structure. Just above the stricture is something like a small ulcer, but confined to the mucous membrane : and a little higher up, is a small opening, leading downwards into an irregular abscess in or about the thyroid gland, capable of holding about a drachm, and containing some moderately thick pus. Immediately above the stricture, and upon the right side, there is a fresh laceration, leading downwards, and evidently, Dr. C. thinks, made by an instrument. The formation of the abscess was probably due, he thought, to the passage of an instrument before he saw her. There was no dilatation of the fauces, but the mucous membrane just above the stricture was a little red, and perhaps excoriated.

Dr. JACKSON remarked that he examined the parts carefully soon after removal, and it was the first case of simple stricture of the Œsophagus that he had seen : he had examined several cases that had been so regarded during life, but had always found some form of cancerous disease. In regard to the rectum, also, he made the same remark ; except that he had not there met with the first case of simple stricture, much as it is spoken of.

SEPT. 9th. *Blighted Twin Fœtus*.—Dr. STORER showed the specimen, which he had received from Dr. Peter D. Walsh, with the following history of the case. A woman, 22 years old, was confined of her second child, Sept. 7th, after a labor of twenty hours. The child, a male, weighed 12 pounds. Pains were immediately renewed, throwing off a blighted fœtus, and subsequently the placenta. The woman did well. No cause could be assigned for the death of the second

fœtus, except that the mother had had a diarrhœa, lasting twenty days, when four and a half months pregnant, from which, however, she completely recovered, and remained well during the rest of her pregnancy.

The blighted fœtus weighed $3\frac{1}{2}$ ounces, and measured $7\frac{3}{4}$ inches in length. It had the flattened, exsanguine, macerated look, and the tattered surface that is so generally seen in these cases. Upon one shoulder is a small quantity of fresh, dark red blood, that must have been extraneous, though it seemed to be, in fact, just beneath the surface. The vessels of the cord were not larger than the smallest sewing thread, and looked as if no blood had passed through them for a long time. The inner surface of the amnion was pretty generally more or less roughened by a dead, opaque, pasty or crumbling, adherent deposit, but nowhere in any great amount. The placenta weighed 1 pound, 15 ounces, and formed a continuous mass—the portion that belonged to the blighted fœtus being in no way different from the remainder, except that it was smaller, each portion having upon the fœtal surface one of the white, opaque, thickened, condensed masses that is so often seen.

SEPT. 9th. *Fatal Secondary Apoplexy; Disease of the Kidneys.*—Dr. MINOR reported the following case.

A man, 49 years old, of dissipated habits, was brought into the hospital, July 21st, with hemiplegia of the left side, dulness of intellect and loss of control over the sphincters; having been attacked early the previous morning, while playing cards, with trembling, followed by convulsions. He began to improve in a few days, recovered from the paralysis, and was able to walk without limping when he left the hospital, Aug. 25th. On the 2d of September he was again brought to the hospital, vomiting large quantities of undigested food, having been picked up in the street insensible. He had no paralysis, partially recovered his intelligence, and slept well. The next morning his mind was quite clear, and he took his breakfast without assistance. Soon after, however, he vomited his breakfast, was attacked with paralysis, followed by coma, and died in a few hours. The pupils were at first contracted, and just before death were dilated. The patient had had no œdema, or other sign of Bright's disease. The urine was not examined.

The *autopsy* was reported by Dr. ELLIS, as follows. *Head.* Calvaria thick, with very little diploë. The tissue of the upper part of the right hemisphere of the *brain* was of a straw color, deepening with each successive incision. About an inch below the surface was a clot, of some age, about 3 inches long by 1 wide, close to the median line, having for its lower boundary the roof of the right lateral ventricle. In and above the pons Varolii was a large recent effusion of blood. The *heart* weighed 1 lb. 2 oz., the excess being due mainly to hypertrophy of the left ventricle. Neither the heart nor the vessels contained any coagula. The *spleen* was very soft, almost deliquescent. The right *kidney* was full size. Its external surface was, in parts, coarse and granular. Cortical substance of lighter color than usual. The microscope showed the tubuli to be filled with fat-globules. The lining membrane of the pelvis was somewhat vascular, and studded with minute translucent granulations. The left kidney was very small, and was composed only of a thin layer of renal substance enclosing a mass of adipose tissue, which lay beneath the

membrane of the pelvis. This was so much in excess of that usually found in this region, that the cavity of the pelvis was reduced to a very small size, though it still communicated with the ureter. In various parts of the renal tissue were yellow formations, showing the existence of inflammation. The kidney was surrounded by a large mass of fat. The liver was congested. The intestines were not examined. The urine was albuminous, and contained numerous crystals of triple phosphate.

Dr. Minot observed that the extravasation in the right hemisphere was evidently the cause of the first symptoms, at the time of the patient's entrance into the hospital; and it was remarkable that he should have recovered so perfectly from its effects, while so large a quantity of the effused blood remained in the substance of the brain. The second seizure corresponded with the effusion on the pons Varolii. Both the apoplexy and the hypertrophy of the heart were probably consequent upon the disease in the kidneys.

SEPT. 23d. *Large Fatty Tumor removed from the Scrotum* by Dr. GILMAN KIMBALL, of Lowell. Dr. JACKSON showed the specimen, which he had received, with the history of the case, from Mr. S. G. Minasian, student of medicine, and with the permission of Dr. K. The patient, an Irishman, 23 years of age, had had, for about five years, pain in the testicles, coming on at times for half an hour or more, and sometimes so severe as to cause faintness: with occasional dysuria. About a year after the pain began, the tumor was first noticed in the lower part of the scrotum, and it had been increasing from that time, the pain and dysuria continuing as before. On examination, it looked and felt like a hernia; spherical, but somewhat elongated by the weight; feeling of hard nodules, about the size of walnuts; no pain on pressure, and by this means the mass could be distinguished from the testicles. In the operation, from which the patient recovered quite well, Dr. K. was obliged to remove a large piece of the tunica vaginalis. The mass weighs about two pounds, and consists of many lobules of pure fat, without anything like a cyst about them, and generally very loosely connected by a delicate cellular tissue.

Dr. J. remarked upon it, as a very singular fact, that such a tumor should form in the scrotum, where, in a healthy condition, fat is never seen. It may have formed higher up, and gradually descended into the bottom of the scrotum, but the patient seemed pretty sure that it first appeared in this latter situation.

SEPT. 23d. *Acute Tuberculosis, or Pyæmia?*—Dr. COALE read the following case.

E. F. W., aged 9 years and 10 months, was born of parents both already affected with tubercle. His mother died when he was two years old—the father six or eight months afterwards. He has always been a bright, active, intelligent boy, and, with the exception of scarlet fever, and a discharge from his ear, healthy. The otorrhœa continued for several years, and last spring there was perforation of the tympanum of one ear, great redness of both, and granulations around the edge of the tympana. The discharge was very greatly lessened, and the perforation of the tympanum closed, by the beginning of August last, when he went to Keene, N. H., to spend his vacation. He was there at the house of a friend, who represents him as having been in fine health, and having enjoyed himself much in active out-door exercise. He returned the first week in September, looking fuller in the

face, and remarkably well. On Saturday evening, Sept. 7th, he was seized with a violent pain in the left ear, which gave him an uncomfortable night, and continued through Sunday. That night, a discharge of pus ensued, and he felt relieved. Monday night he was feverish, and on Tuesday he had a violent chill, followed by increase of fever; then a sweat, and then a great remission of the fever. Wednesday, these symptoms were so slight that it was supposed he was getting over the trouble. They recurred, however, with great violence Thursday night, and on Friday morning, September 13th, Dr. Coale was sent for. The boy was in a high fever: the tongue coated over the middle, but red and clean around the edges. Pulse 100; some headache in the forehead and top of the head; no delirium; bowels free: no nausea; no tenderness over abdomen; no pain; no cough. Calomel and magnesia were prescribed, and the next morning were found to have operated kindly. This was followed by *Spiritus Mindereri*. During the night, however, another chill had occurred, with the same sequence of exacerbation, sweat and remission. These symptoms were not altered in any particular, except in the tongue cleaning off somewhat. The chills occurred sometimes once, but on two or three occasions, twice, in twenty-four hours. On examination of the chest, no physical signs were detected that threw any light upon the disease. The upper part of the right front chest seemed a little duller than the same region of the other side. The examination, it should be mentioned, was made while the patient was lying on the back. On Thursday, Sept. 19th, symptoms of sinking were very evident. The past night had been one of great suffering. Violent pains had been felt in the right chest, and had been only partially relieved by hot applications. From this time the disease made a rapid progress. The fever was more unremitting and higher, the strength failed. There was, however, no cough, no strabismus, or subsultus, no delirium, and to the last moment no clouding of the mind. Death took place on Sunday, at 7 P.M., Sept. 22d.

The post-mortem examination was made the next afternoon. The brain was not examined. All the organs were healthy except those of the thorax. In each pleura was found a pint of muddy serum with flocculi of lymph floating in it. The membrane itself, both on the costal and pulmonary side, was covered with lymph, in some places so tenacious and membraniformed as to be peeled off readily for the length of an inch, and for half that breadth. In the right pleura were several points of recent adhesion, one of some three or four inches in extent. The lungs were so alike in their condition, that they need not be described separately. They presented, in different parts, apoplexy, simple congestion, hepatization and abscess. The apex of each was free from disease, the affected parts being chiefly confined to the posterior and inferior parts. There was, however, a purulent deposit, the size of a hickory nut, somewhat like gray hepatization, in the anterior part of the right lung; and on the anterior inferior edge of the superior lobe of the same lung there was an abscess the size of a small pea. The pus in this was not entirely fluid, but had with it, and adhering to the walls, a pasty substance more decidedly like tubercle than anything else that was found. There were certainly no tubercular deposits or miliary tubercles.

What was the disease? Was it tuberculosis, or was it pyæmia? There was surely every reason to expect tuberculosis from the ante-

cedents of the patient, but immediately before the attack he had been very well. There was no unaltered tubercle found, though the soft, pultaceous contents of the cavities of the abscesses looked much like broken-down tubercle. There was no tubercular deposit in the apices, but in another case of Dr. Coale's, while both lungs were studded with miliary tubercle, and tuberculous masses existed, in every other direction, the apex of the right lung was the only sound spot in the pulmonary apparatus. But could it be called a case of pure pyæmia? The ear had discharged very freely, and after the gush of the discharge there was but very little oozing, as if very little pus were manufactured, and no pain or uneasiness, showing there was no retention. The character of the fever was not indicative of blood-poison, nor was there any of that cerebral disturbance generally found. In pyæmia, too, we have the deposits fewer in number, but larger.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 17, 1861.

UNITED STATES SANITARY COMMISSION.—The publications of this body, of which we gave some account last week, contain so much matter of general interest, that we cannot refrain from recurring to them again. We rejoice to see that its members are practical, working men, not merely theorizers or retailers of trite commonplace in matters of hygiene. The reports of its individual members show that they have seen with their own eyes the very many things which needed correction in the various camps and barracks of our volunteer force; and there is an outspoken honesty in them which “calls a spade a spade,” and does not hesitate to hold up abuses to the public gaze, and to mention delinquents by name even, which in our community is refreshing indeed. The unanimous approval of the acts of the Commission, and the great deference that has been everywhere paid them, promise well for the good which is likely to result from their labors. Probably by this time many of the evils complained of by them have been corrected, growing, as they did, many of them, from nothing but sheer ignorance. Those which have this excuse to offer will hardly stand long in the light which these reports throw upon them. All the publications of the Commission are extremely interesting, and we hardly know where to stop in selecting extracts. Beginning with Dr. Howe's admirable letter on the sanitary condition of the troops in the neighborhood of Boston, we find that even here, where we have been apt to think we were models for universal imitation, we had not a little to learn. As Dr. Howe's letter bears date July 25th, we are ready to believe that many of his valuable suggestions have been already acted on; in fact, the good health among our troops in camp would seem to prove this. At the time of his visit, however, Dr. Howe says:—

“As a general thing, not only at the islands, but in the camps on the main land, the men are too much crowded. This is especially true of their quarters by night. The able report of the British commissioners on the sanitary condition of the army recommends that each soldier be allowed in his barracks a space containing at least 600 cubic feet of air.”

Dr. Howe then gives the measurements of the space allotted to the men at Forts Warren and Independence, and shows that in Fort Independence

“The maximum cubic space of air to each man is less than one half the minimum recommended by the British Sanitary Commission. The floor space was still more cramped, being less than 16 feet upon an average, and in one room less than 13 feet to a man. This allows only about two feet lateral space upon the floor, so that the men slept in actual bodily contact, packed almost like herring.”

At Fort Warren, “the average floor space was less than 15 feet to each man, and the average and cubic space less than 145 feet.”

The Doctor makes an excellent suggestion with regard to pitching tents. He says:—

“In the first place, the tents are badly pitched. In some no attention is paid to drainage; and in none that I have seen is the drainage systematic and thorough. In some, as at Readville, a slight ditch is dug around the tent, and the sods and dirt left in a heap or carried away at leisure. A far better way is, supposing the tent to be circular, to mark a space equal to its circumference at the bottom, and take off all the sods from the inside of this circle, then dig a trench all around the outer edge and throw the dirt within the circle, then take the sods and put them back again, and beat them down firmly. You have then an elevated floor; and if you drive the pegs at the bottom of the trench, and strap down, you can easily keep the tent dry without closing it at the bottom. If the wind blows, throw in a little light straw, hay, or brush, and break the draught without closing the opening. If the ground is well chosen, it is easy to drain all the trenches into one common drain.”

The barracks at Camp Cameron are also subjected to Dr. Howe's strictures, and were at the time of his visit, he says, “utterly unfit for New England men to live in. They are unfit for barracks for soldiers who are being trained for the army”; and in conclusion he remarks that

“They are so constructed as to allow our soldiers less than 14 feet floor space, and less than 245 cubic feet of air. Admitting that the buildings are not full, and that upon an average the inmates do not exceed 100, still we give them only 20 feet of floor space, and 300 cubic feet of air; a stinted allowance, which, if made to paupers, ought to cause the almshouse to be indicted as a nuisance. The same may be said of the Park Barracks, in New York, and many others.”

The Commissioners found much that needed correction in the construction of the sinks, the diet, and the cooking arrangements of soldiers, all of which we hope has been amended, so far as the rules of the service allow, by this time.

Another interesting document, in the same collection, gives “Notes of a Preliminary Survey of the United States Forces in the Ohio and Mississippi Valleys, by H. W. Bellows, D.D., President of the Commission.” Dr. Bellows gives sketches of his visits to the different posts and encampments at the West, and shows the same interest in details of camp arrangements that other members of the Commission do elsewhere, and criticizes with the same freedom. He found some shocking abuses, and observed many instances of gross neglect, as well as evidence of ignorance and inexperience, which we cannot but hope have been remedied before this. After referring to the empty Marine Hospital at Cincinnati, which had been built at an enormous expense by the government, and had been allowed to remain idle while the patients had been farmed out at a miserable concern called the Commercial Hospital, he speaks of such institutions in the following terms,

in which we think he will find many hereabouts most cordially to agree with him :—

“The abuses of the United States Marine Hospitals are worthy of the attention of a special committee, directed to visit every one of them, and report minutely their separate history, cost, age, use, and present condition. It is feared that they would turn out to be a systematic fraud on the public treasury, made with the connivance or inadvertence of successive administrations, under the alleged necessities of party spoils. They afford opportunities for the sale of costly pieces of ground, and the erection, under profitable contracts, of expensive edifices, and then the appointment to lazy offices of resident stewards, and the salariving of attendant physicians. Being under the control of the Treasury Department, they fall into the hands of the collectors of the ports where they are situated, and by them are, I suspect, generally administered, as at St. Louis, in a perfectly careless manner. Their combined cost, and the money expended in maintaining them, often in a ruinous state, would, considering the small amount of usefulness reaped from them, present them, taken altogether, as one of the most unjustifiable abuses of the public funds; and if they are sustained, as is affirmed, out of the money paid by the marines themselves, it makes the misconduct of their trustees, the United States government, only additionally reprehensible.”

Amen! to that, with all our hearts.

Turning over the leaves of the report, we come to Cairo, of which we are glad to learn that

“Though low, it is now neither damp, muddy, nor unhealthy. The water which stands in the plain a few inches deep, after a heavy rain, very soon, owing to the sandy character of the soil, disappears. Engines are at work, also, to drain the surplus water off into the river. The army has cleared away some thousands of stumps from the central plain of Cairo, and created a very fine parade of two or three miles long, and a mile or so broad. Col. Paine’s regiment was chiefly active in this good work, which will prove of lasting service to Cairo. The general health of the place is testified to by an intelligent resident physician (a Virginian) as being better than at most points on the Ohio and Mississippi. Fever and ague does not abound, and there seemed to be a general testimony among the army surgeons there that the health of the troops was as good as at any other point where so many men are collected. The sick list showed us about 250 on their backs in a force of 6000, which, at the close of June and first of July, is not an excessive number. The open, airy character of Cairo, situated between two rivers, which act by their unequal currents as perpetual ventilators, saves it from the influence of the malarious airs, which seem to blow over it, and produce their mischievous effects in the high lands beyond, on bluffs crowned with wood, at Villa Ridge, clothed with a forest obstructing the free passage of winds, and occasioning, perhaps, by a cooler atmosphere, a precipitation of the poison at a particular level. Cairo proves more healthful than would be supposed from its apparently exposed position.”

Dr. Bellows finds in too many instances much inattention to cleanliness, carelessness on the part of the men, overcrowding, &c., which seem to be the almost universal faults among our volunteers at first. We cannot help quoting one case of gross want of judgment in locating a camp, and of apparently culpable remissness on the part of the medical officers. Speaking of the 22d Illinois regiment, in camp at Caseyville, he says :—

“The 22d regiment, Col. Dougherty, is in a wretched condition. It is encamped only a half mile to the east of the 13th. But it is in a valley, beneath very shady trees, and under the lee of some hills, all which combine to make the miasmatic atmosphere stagnate at the spot, as the winds have no circulation. They have been there only thirteen days, but have 250 men, out of about 900, more or less sick with camp dysentery. This is due in part to the situation, but in part also to the water, which is black and disgusting. It is taken from some pits sunk in a kind of half stagnant gutter, in the other end of which the pigs are rooting.

All the water they have is from this wretched source, and they have not enough even of this. Of course they mix worse rum with this bad water, and the men are poisoned.

"The hospital is in a room hired for the occasion, which is a perfect pig-sty for nastiness. The accommodations are only for, say five and twenty, and the sick are 250. The steward (for both surgeon and assistant were absent) had made fifty prescriptions to-day, and was not through yet. The camp has no hospital tent or stores, except what it borrows from the 13th. The surgeon of that regiment is also absent. There is evidently a gross neglect in these easy absences, granted at a time when no excuse should suffice to absent the doctor, who is so sadly wanted."

Speaking of the effect of the water upon the health of a large camp, Dr. Bellows says:—

"It is evident that change of water, and especially *bad* water, is the most immediate and serious cause of illness in all western camps at this time. Pains enough are not taken to place the camps with reference to the vicinity of good water. The best water in Illinois was said to be found at a ridge running down from four miles below Alton, near the Junction, where broad and excellent camping and parade grounds existed. The colonels had *prospected* this place, and approved it; but were, nevertheless—so I heard from a reputable source—ordered to remain where they were, and where they had actually suffered at first for want of *enough* water, because the contractors found the immediate neighborhood of Alton a more profitable place to meet their engagements in!"

Referring to the matter of discipline, the Commissioner says:—

"Col. Turner said the great difficulty was in getting the men to obey officers no better than themselves, and often not as good. The officers might *persuade*, but did not know how to *command* men they associated with at home as equals. And this is the chief misfortune about the volunteers, and really raises the question whether the men of one district would not be better officered from another. The colonel complained that it was very difficult to have the camp police, in respect to the use of sinks, carried out, and this was evident to several senses."

This is an evil which our Virginia experience must have done much to correct by this time; actual service in the field soon shows men the importance of obedience to their officers.

As a specimen of the operation of red tape, we give the following:—

"It is evident that the medical directors are in general too few, too old, or too inactive; that they do not go about and inquire into the wants of the surgeons and hospitals, and facilitate their accommodation with stores. The regiments at Caseyville, Cairo, Alton, had been visited by Dr. Taggart, who referred them to Dr.——, who was with General McClellan. But all this roundabout inquiry compelled these urgent hospital wants to be referred to Springfield—a distant place—where orders were made out to be filled at Cincinnati, while all the time a medical director and purveyor both existed at St. Louis, with abundant stores, whence, at a distance of nine miles from Caseyville, twenty from Alton, and six hours or so from Cairo, all these wants could be in 24 hours fully met. I endeavored to bring this about; but the medical director at St. Louis is old and inactive, and past real usefulness; while Dr. Bailey, medical purveyor, no longer young, lives at Jefferson Barracks, where he is surgeon, and does the duties of this St. Louis post as extra service, which is all wrong. Young, active and efficient men are solely wanted in this important department. The lack of a regular inspector, U. S. A., flying through the camps, communicating information, and spurring on and facilitating official service, is most obvious."

We have thus gleaned from these interesting reports enough to show how much the Sanitary Commission was needed, and how great a good is likely to result from their labors. As matters of history they are of extreme value; and we cannot but think that through their agency our country will be saved the lives of thousands of her brave

sons, who would otherwise have fallen victims to our general ignorance and inexperience in matters of war.

BOSTON DISPENSARY.—The following is a summary of the number of patients enrolled upon the Registers of the Institution for the year ending Oct. 1, 1861:—

Whole number, 16,834. Central Office, 8,802. Medical service, 5,635—Males, 1,200; females, 2,355; children under 15 years, 2,080. Surgical service, 3,167—Males, 976; females, 1,002; children under 15 years, 1,189. Patients returning one or more times, 10,534—medical, 6,402; surgical, 4,132. Average daily attendance at Central Office, 63. Patients at their homes—whole number, 8,032—Males, 1,222; females, 3,067; children under 15 years, 3,743. Results in the Districts—Discharged cured or relieved, 7,491. Removed to Hospital, 235. Died, 305. Number of cases of midwifery, 219. Dispensing of medicines.—Whole number of prescriptions for the year, 37,910. Written at Central Office, 18,721; written by District Physicians, 19,189. Average daily number (Sundays excepted), 120.

DEATH FROM CHLOROFORM.—A young man, a patient in the Cumberland Infirmary, Carlisle, England, came to his death on the 6th of September, while under the influence of chloroform administered by the house-surgeon previous to the performance of a surgical operation. Unconsciousness had begun, and the surgeon was about commencing to operate, when alarming symptoms were shown, and soon breathing and animation were suspended, and could not be restored.

DURING the month of September, the mortality of Providence, R. I., was 109.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 12th, 1861.

DEATHS.

	Males.	Females	Total
Deaths during the week,	27	41	68
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	39.0	38.7	77.7
Average corrected to increased population, . . . . .	..	..	86.25
Deaths of persons above 90, . . . . .	..	2	2

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicla.	Dysentery.	Typ. Fev.	Diphtheria.
15	8	2	1	1	0	1	2	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.085	Highest point of Thermometer,	77.0
Highest point of Barometer,	30.456	Lowest point of Thermometer,	41.0
Lowest point of Barometer,	29.618	General direction of Wind,	N.N.E.
Mean Temperature,	58.9	Am't of Rain (in inches)	0.82

For the week ending Saturday, Oct. 5th (omitted in our last issue)—Mean of barometer, 30.241; highest point of barometer, 30.578; lowest point of barometer, 29.762. Mean of thermometer, 58.9; highest point of thermometer, 77; lowest point of thermometer, 43. General direction of wind, west. Amount of rain (in inches), .08.

COMMUNICATIONS RECEIVED.—Pinel, Broussais and Louis.—A Case of Poisoning by Stramonium.

BOOKS RECEIVED.—The Principles and Practice of Obstetrics. By Gunning S. Bedford, A.M., M.D. New York: S. S. & W. Wood.

DEATHS IN BOSTON for the week ending Saturday noon, October 12th, 63. Males, 27—Females, 41.—Accidents, 3—asthma, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 1—cancer (of breast), 1—cholera infantum, 8—consumption, 15—convulsions, 4—croup, 2—debility, 1—diarrhoea, 1—dysentery, 1—scarlet fever, 1—typhoid fever, 2—hæmoptysis, 1—disease of the heart, 2—infantile disease, 3—insanity, 2—disease of the kidneys, 1—inflammation of the lungs, 1—marasmus, 5—old age, 2—puerperal disease, 1—scrofula, 2—disease of the spine, 1—suffocated, 1—unknown, 1—whooping cough, 1.

Under 5 years of age, 34—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 10—above 60 years, 4. Born in the United States, 46—Ireland, 14—other places, 8.

THE

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THURSDAY, OCTOBER 24, 1861.

No. 12.

REPORT OF A COMMITTEE OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT, ON THE ALLEGED DANGERS WHICH ACCOMPANY THE INHALATION OF THE VAPOR OF SULPHURIC ETHER.

[Read before the Boston Society for Medical Improvement, October 14th, 1861, and communicated for the Boston Medical and Surgical Journal.]

ANY one who has observed the course of events, especially the tone of journals and the published statements of late surgical writers, as Erichsen, Druitt, Hamilton and others, must have noticed a diminishing confidence in the safety of chloroform and an increasing willingness to allow the greater security of ether. Various influences have, however, prevented the disuse of the former, even by many of those in whose hands accidents have occurred, and it still remains the anæsthetic most in vogue. When the subject of chloroform first came under discussion, its dangers were commented upon, and even then freely acknowledged. It had not been two months introduced when "a well-developed girl of 15" died from its administration for the evulsion of a toe-nail, "the process of inhalation, operation and death not having occupied more than two minutes."* Since that time, deaths from its use have repeatedly occurred. On the other hand, fatal results from ether, although still figuring in the statistics of mortality from anæsthetics, are everywhere admitted to be very infrequent. Indeed, the opinion has been expressed by various authorities, both in America and Europe, that a death really attributable to the inhalation of sulphuric ether is yet to be reported. The correctness of this opinion has, however, been repeatedly denied, and the strong conviction of the absolute safety of this agent, which exists in some localities in this country, is thought to have its foundation rather in the desire that the fact might be established than in the proof that it was so. Of course no one intends to say that a person cannot be killed by ether. The inhalation of its vapor without a sufficient admixture of oxygen destroys life by asphyxia. This may happen,

* Medical Gazette, Feb. 11th, 1848, p. 255.

and unfortunately has happened, but such an event cannot be laid to the anæsthetic, since, in such a case, it is the method of administration, and in no sense the ether, which causes the fatal result.

It is the purpose of this report to solve the doubt just implied with regard to the absolute safety of sulphuric ether, and to investigate the dangers of its use as compared with chloroform. In pursuance of this object, therefore, we propose, in the first place, to consider what conditions and precautions are necessary in bringing about a state of insensibility by its use, and what phenomena of etherization have an apparent or real danger.

I. The safe inhalation of ether requires proper attention—1st, to the quality of the article used; 2d, to the method of administration; 3d, to the symptoms which present themselves while the patient is under its influence.

1st. *Quality of Ether.*—Ether for inhalation should be of unquestionable purity. A large amount of inferior ether is sold which cannot readily be distinguished from that which is pure, except by its effects, although an expert, familiar with its properties, may infer something from the odor and other sensible qualities. The inferiority may be due to oxydation from bad corking, the presence of alcohol, sulphurous acid which has not been removed by thorough washing, and volatile oils. Either of these impurities may give rise to a tedious and imperfect inhalation, and the latter of them, by irritating the bronchial mucous membrane, to such coughing, struggles and resistance that the patient is finally etherized in a distressing and unsatisfactory manner. Accidents of this kind lead to a disparagement of the value and practical usefulness of ether. It is therefore an advantage for the surgeon to procure his own ether, or to use from an "original package," of the character of which he has already assured himself.

There are two brands of ether in common use in this country; viz., that manufactured by Powers & Weightman, of Philadelphia, and that by Dr. Squibb, of Brooklyn, N. Y. These are uniformly of excellent quality. The latter is remarkably anhydrous, but possesses an odor more harsh, disagreeable, and intensely ether-like than the former, and, in the opinion of those who have used it extensively, produces more choking during inhalation. This may be remedied to a certain extent by moistening the sponge from which it is given in water, enough of which will perhaps be taken up by the ether to diminish its unpleasant effects.

Ether may be made purer by simple agitation in lime-water, allowing the water to settle, and then decanting; and this washing is practically, and for general application, as good a method of purification as can be adopted without re-distillation.

2d. *Method of Administration.*—Ether should never be given from any inhaling apparatus. The best medium of its administration is a bell-shaped sponge, large enough to cover in the nose, mouth and chin; but it is difficult to find one of sufficient size and close

enough in texture, or without such numerous apertures at the root as to admit too freely the atmospheric air. A sponge of this sort, moreover, being as expensive as rare, is seldom used outside of hospitals. A stiff towel, properly folded, may be substituted, and has the advantage of being always at hand; as it may be left behind, the surgeon does not carry away with him the annoying odor of an impregnated sponge. It is desirable that the towel should be a new one, and of pretty good size. It is to be taken just as it comes from the laundry, and not unfolded further than to display it in the dimensions of about ten inches by five; by folding down two of the corners in such a way that they shall lap over each other a little, and securing them by stout pins, a cone will be made which fits the face admirably. The thick layers of towelling will hold sufficient ether, and its texture prevent a too free dilution of the anæsthetic by the atmospheric air, provided the apex and seam of the cone are carefully and tightly closed, either by pins or the fingers. As the cone becomes collapsed by saturation, it should from time to time be opened, and kept in shape by distending it with the hand. Unless these details are attended to, and especially the closure of the apex of the cone, the induction of anæsthesia will be uncertain and protracted. In anything so porous as a towel or sponge, the difficulty is to exclude enough air; for while its adequate admission to the lungs during etherization is essential to the life of the patient, its too free entrance not only delays anæsthesia, but induces a condition of excitement, both mental and physical. The importance of excluding the air, as above stated, is a point not generally appreciated, but the necessity of it has long been known to those most accustomed to the use of ether, as shown by the "chemise" with which, in hospital practice, a too porous sponge is often covered to expedite the etherization of a rebellious patient.

Ether should be poured lavishly on the towel or sponge, an ounce or two at a time, especially at the commencement of inhalation. Although it may be wasted, too much, so far as safety is concerned, cannot be used. A small quantity poured on hesitatingly and timidly, as is sometimes done, has the same effect as a too free dilution of the vapor with air, producing simply intoxication and its accompanying excitement without anæsthesia; whereas a large amount, though the cough and choking sensation which the greater volume of vapor produces may cause the patient to resist and struggle, is certain to bring about a satisfactory condition of insensibility.

3d. *Phenomena of Etherization.*—A strong, full-blooded man is pretty sure to resist the approaches of anæsthesia under any circumstances. This may sometimes be overcome by warning him before hand of such a possibility, and inducing him to resolve not to struggle; the last impression on his mind influences him even in his stupor. The same thing is liable also to happen with almost

all patients just before complete anæsthesia takes place, but the ether rarely requires to be suspended. Occasionally the respiration becomes embarrassed during the period of excitement, partly from the struggle itself, and partly perhaps from the increased flow of saliva, which is a common phenomenon of etherization, or from the position of the tongue or head of the patient, and a condition may sometimes show itself characterized by lividity, rigidity, and convulsive motions of the extremities. These phenomena, it is an observation of Dr. H. J. Bigelow, of this city,* are in reality the tetanic symptoms which, Dr. Brown-Sequard has shown, precede the approach of asphyxia. Although alarming to the inexperienced, the state is in fact devoid of danger, provided the ether be momentarily suspended; this being done, the refusal to breathe soon gives place to a long-drawn inspiration, and in most instances complete insensibility immediately ensues. In such a case it is interesting to observe how readily the spasm yields, and how complete is the muscular relaxation which follows the free respiration of air unmixed with ether. It should therefore be borne in mind, that when there is muscular rigidity with lividity, the suspension of etherization will transform this into the relaxation of anæsthesia. Persons of intemperate habits succumb to ether slowly, and with greater reluctance and more opposition than persons unused to intoxication.

The pulse should be watched by a competent person from the outset, and its failure, either in strength or frequency, lead to a more cautious use of the ether. It must, however, be remembered, that in experiments with anæsthetics upon animals, the heart has been found to be the *ultimum moriens*;† the respiratory movements, therefore, should not be forgotten or neglected, but any slowness or irregularity in their performance should at once receive attention. Attention has been drawn by Dr. H. J. Bigelow to the distinction between the effects of anæsthesia upon the pulse of the healthy subject suddenly reduced by accident, and a similar or even stronger pulse in a person exhausted by long and grave disease. In the former case the vitality is unimpaired, and the pulse, even when hardly perceptible, rises with anæsthesia. Ether, therefore, is not to be withheld from a patient to be operated on, even in a state of collapse after severe accident, but great caution is demanded in its use with patients who are near death from chronic and exhausting disease, and who require operations.‡

The best test of complete etherization is the snoring of the patient; and no operation, unless slight, should be undertaken until this symptom presents itself. The relaxation of the muscles of the extremities may occur without insensibility. The important distinction between *snoring* and *stertor* is, however, to be borne in

* Unpublished Records of the Boston Society for Med. Improvement.

† Du rôle de l'acool et des anæsthesiques dans l'organisme, Lallemand, Perrin et Duroy, Paris, 1860, p. 393.

‡ Unpublished Records of the Boston Society for Med. Improvement.

mind. Whilst the former is caused only by the relaxation of the muscles of the palate, the latter arises from spasm of the vocal cords and partial closure of the rima glottidis, and thus becomes the immediate forerunner of the train of symptoms already referred to as indicative of partial asphyxia. Stertorous respiration demands, therefore, a brief suspension of inhalation; one or two inspirations of fresh air will, as already mentioned, almost instantly dispel the symptom.

Ether may be administered to persons of all ages, from the new-born infant to the octogenarian. There is, however, a condition prone to manifest itself with children, especially those who are weak, strumous or overgrown, which is due to its cumulative properties. It may show itself after almost any degree of etherization, and is characterized by a feeble pulse and slow respiration, not passing off with the readiness usually marking the phenomena of etherization. With young persons a cautious inhalation of five minutes will often induce an anæsthesia of half an hour, an effect wholly out of proportion to what the same amount of ether would produce in an adult. This state is not a dangerous one, and only requires time to dissipate its symptoms. Compression of the chest will expel the fumes of ether being eliminated from the pulmonary surface, and admit the entrance of a fresh supply of oxygen to stimulate the circulation. The inhalation should therefore be suspended at short intervals with children, and but little ether given at a time. It should also undoubtedly be used with great caution with persons, past the middle period of life, of such a general obesity or constitutional condition as may lead to the supposition of a fatty degeneration of the heart. In none of the alleged deaths from ether is there any mention, however, of valvular disease of the heart being found. Of this, then, and of any bad effect upon pulmonary affections, there need be no fear, for we see it constantly administered without detriment to persons more or less advanced in phthisis, for the common operation of fistula in ano.

Its subsequent effects are rarely disagreeable. The nausea and vomiting which follow the use of any anæsthetic may be prevented or diminished by giving it upon an empty stomach. Faintness, although a rare event, is occasionally noticed, and demands the ordinary treatment by stimulants. Headache sometimes remains for a few hours, but seldom persists into the following day. We now and then hear of delirium, debility, and the non-return of a full use of the mental faculties, as temporary accidents from the use of ether.* Such occurrences must be of extreme rarity, and probably find their explanation as much in the idiosyncrasies of patients as in the effects of the anæsthetic.

* Lente, *N. Y. Journ. of Med.*, Nov., 1856. Clark, *do. do.*, Sept., 1856. Hooker, *Boston Med. and Surg. Journ.*, Vol. 53, p. 231. Humphry, *Provincial Med. and Surg. Journ.*, Aug. 9, 1848.

II. Having thus detailed what we conceive to be the conditions of its successful and safe administration, we undertake, in the second place, to prove that, these conditions being fulfilled, sulphuric ether is, of all anæsthetic agents, alone worthy of unlimited confidence.

Confirmation of this assertion is to be found in what we know of the use of ether in other places. It is true that thus far this has been limited to a few localities, but wherever it has been adopted the confidence and freedom with which it is administered is worthy of notice. In 1857, it was stated that for about eight years ether alone had been used in the civil or hospital practice of Lyons, in France, and that during that time the necrology of anæsthetics, so far at least as that city was concerned, had remained closed.* And here in Boston, where more ether has probably been inhaled during the last fifteen years than in any other place in the world, from the time when Dr. George Hayward performed the first capital operation under its influence (Nov. 7, 1846) down to the present day, no fatal result has ever occurred, or been heard of in the vicinity, though repeated deaths have happened from chloroform during the same period.

But to sustain the above conclusion with regard to the absolute safety of sulphuric ether, your Committee place their chief reliance upon the histories of the recorded fatal cases thought to have been caused more or less by its inhalation, and upon the result of their own efforts to obtain information of all others of the kind known to the profession any where.

With unequalled facilities to examine the literature of the subject under discussion, with all the chief foreign and American Journals at hand, and the results of a most extensive distribution of circulars before us, no case of which we have knowledge can be cited as unquestionably and unavoidably fatal from the breathing of pure sulphuric ether.†

The following two conditions must be considered essential to any case of death fairly attributable to the inhalation of an anæsthetic agent :—

1st, That the event should occur while the patient is actually in an anæsthetic state.

2d, That the circumstances of its occurrence should be inexplicable by any phenomena of disease or operation.

Such a death should be unavoidable by any precautions which might be adopted were the patient to be again rendered insensible under similar circumstances. It must consequently be sudden and unexpected in manifesting its symptoms, as well as rapid in its

* *Revue Médicale*, 1857, p. 602.

† In an appendix to this report, every instance of alleged death, or allusion to such, caused by any form of ether, which we have been able to find, is given with all the important facts of its occurrence, or at least so far as they could be obtained. If any other cases, conclusive or not, have occurred, this Committee is not responsible for their ignorance of them, as they have used every means in their power by notices in newspapers and medical Journals, and by a correspondence scattered over the United States (long prior to the interruption of mail communication by the rebellion), British Possessions, West Indies, England and Europe, to collect all existing facts bearing on the subjects of their investigations.

progress to a termination. The unmistakeable deaths following the use of chloroform have usually been almost instantaneous; out of 27 which occurred within 10 minutes, 15 took place in less than 2 minutes.* No conclusive light can be thrown on the subject by a post-mortem examination; it can only demonstrate a cause exculpating the anæsthetic—there being no pathognomonic signs of death from the use of these agents.

It is clearly unreasonable, therefore, to attribute to anæsthetics deaths happening long after patients have recovered from their immediate and specific influence. A man is etherized for lithotomy, and dies of pneumonia a week later; or, a female, anæmic and feeble, suffering from the constitutional effects of a malignant tumor of rapid and large growth, inhales chloroform for the bloody or tedious operation by which it is to be removed, and dies twenty-eight hours afterwards without rallying. Events of this description are not so infrequent where no anæsthetic has been used as to require any other explanation than such as may be found in the operation or disease itself, and are obviously liable to occur from accidental causes under any circumstances. Yet this is the character of a large proportion of the facts cited by writers as evidence to prove the occasional occurrence of fatal results from the inhalation of ether.

Of the whole number of alleged deaths from sulphuric ether (41) which has been collected by your Committee, 16 survived the inhalation from 3 to 16 days, and 8 from 3 to 50 hours. In all of these death occurred after the peculiar primary effects of its use had subsided, from a secondary set of symptoms, which were either simply coincident or else such as are well known frequently to terminate in death when no anæsthetic has been used, and which, moreover, never show themselves in cases of inhalation for slight and trivial operations where the primary effects of ether have been just as well marked as in the severer operations after which they were alone noticed. Of the six cases in which death occurred in less than 24 hours, three, viz., Nos. 3, 8 and 12, have been almost universally set aside as inconclusive; two, Nos. 15 and 21, are manifestly unattributable to the ether. Of the sixth, No. 40, the details are very meagre, but that the death had any connection with the anæsthetic, is at least improbable. In the remaining seventeen cases where death was immediate, or nearly so, the connection between the result and the inhalation is either problematical or else manifestly absurd and unfounded, except in four instances, viz., cases 1, 25, 34 and 39, where it was due to asphyxia, brought about by wholly avoidable causes. The administration of an anæsthetic *in articulo mortis*, as for example in an operation for strangulated hernia, may sometimes merge the sleep which it produces into the sleep of death, without the termination of the case being hastened by, or attributable to, the inhalation. Patients die from

* British Med. Journal, Feb. 21, 1857.

croup during an attempt to save life by tracheotomy, and may equally succumb to tetanus or delirium tremens during the inhalation of ether or chloroform. Cases 23, 27, 28 and 30, must be considered as instances belonging to such a category. Of the seven cases in which the period when death took place is not mentioned, there is no one where the evidence does not admit of strong doubt as to the connection between the result and its cause, or else is insufficient to produce conviction.

The remaining cases of the table not yet accounted for, viz., Nos. 16, 19, 20, 24 and 29, are no better able to stand the test of examination. The character and circumstances of the operation in the first three certainly absolve the ether. In the 4th (No. 24), the nature of the injury as shown by the autopsy and the condition of the patient at the time of inhalation—it being such as in the unanimous opinion of those present would not permit the use of chloroform, together with the fact that he never was fairly etherized—point to some other cause than the anæsthetic to account for the fatal result. The history of, and the statements connected with, the remaining case (No. 29), equally exclude that from being relied on as an instance of death from ether.

The statements of any author, however distinguished in position, not accompanied by proof in the form of *pièces justificatives*, must remain of no value in face of the direct evidence of your Committee, that their careful search of journals and monographs furnishes not a single conclusive case of death from the proper inhalation of pure sulphuric ether.

III. In contrast with the foregoing evidence, how striking is the admission of the staunchest partisans of chloroform, that no care on the part of the administrator, nor intrinsic chemical perfection, will insure the safety of the person breathing its vapor! Neither the skill of a Dr. Snow, nor the laboratory of Duncan, Floekhart & Co., appear to exempt those who inhale chloroform from the fatal calamities which sometimes ensue wherever it has been used.

In 1857, in a discussion before the Academy of Medicine, M. Ricord spoke of the use of chloroform as “an accident which complicated an operation;” and in 1859, the President of the Paris Société de Chirurgie, M. Hervez de Chegoïn, seriously proposed the question, “Whether its use had not better be actually suspended until some method of using it with constant security had been discovered, or, if it is to remain of so uncertain safety, even renounced altogether?”* In 1856, Mr. Erichsen, of London, in a letter to Dr. S. D. Townsend, of this city, said, that “when a patient was fully under the influence of chloroform he was on the verge of death.”† The epithet “*fleau chloroformique*” is, therefore, no undeserved one, for in any man’s hands chloroform may

* Séance du 9 Mai, 1859.

† See Record of the Boston Society for Med. Improvement, Vol. 3, p. 34.

indeed become a scourge whose blows shall fall so suddenly and mysteriously, that before the surgeon's knife is taken up the patient's life may have passed away beyond resuscitation.

No such impressions have ever prevailed with regard to sulphuric ether. No one can die from it as he may die from chloroform. Dr. J. C. Dalton, in a letter to your Committee, speaking of the use of chloroform in the vivisection of animals, says, "I am convinced from my experience, that no caution will prevent its producing a fatal effect, and no care will enable the operator to see when the danger is threatened." On the other hand, with regard to ether, he states, "I never feel any anxiety as to the safety of an animal under etherization, provided I can myself watch the state of the pulse and respiration, or can rely upon the aid of a competent assistant for that purpose. So far as my observation goes, the dangerous symptoms in the case of ether can always be recognized, with ordinary care, in sufficient time to prevent a fatal result." Dr. John Snow declares that "he holds it almost impossible that a death from ether can occur in the hands of a medical man who is applying it with ordinary intelligence and attention."*

The more agreeable *odor*, the more *rapid result*, and the smaller *bulk*, are the only compensations offered as an offset to the suspended sword which thus hangs over the surgeon whenever he invokes the aid of chloroform.

The first of these advantages seems too unimportant to be serious; nor are all people of one opinion as to the more agreeable smell of chloroform. M. Roux talks of its "nauseating and sickishly sweet odor," as being more painful to inhale than that of ether;† and M. Sédillot says, that of patients submitted by him "sometimes to the use of ether and sometimes to that of chloroform, all have preferred ether."‡ Dr. Snow esteems the odor of, and the sensations produced by, ether as much more pleasurable than those of chloroform.§

Then, too, as to rapid action, a patient may be put by ether into a thorough anæsthetic condition for the performance of a by no means short or trivial operation in one minute and a third.|| Chloroform can hardly do more than that. Is the rapid production of anæsthesia, however, a desirable thing? It is an assertion based upon statistics that the early stage of chloroformization is the most dangerous.¶ The agitation and excitement of patients during the first moments of inhalation may explain this, as the rapidity and intensity of anæsthesia are in proportion to the activity of respiration and circulation. Such being the case, a gentler and slower anæsthetic than chloroform ought to carry the patient

* On Chloroform and other Anæsthetics, their Action and Administration, London, 1858, p. 362.

† L'Union Médicale, 4 Janv., 1848.

‡ De l'Insensibilité produit par le Chloroforme et par l'Ether, et des Operations sans douleur, Paris, 1848, p. 95.

§ Loc. cit., p. 357.

|| British and Foreign Med. Chir. Review, October, 1859, p. 352.

¶ Med. Times and Gazette, May 12, 1860.

more safely over this dangerous period, by allowing the etherized blood gradually to penetrate the remotest parts of the system, and thus avoid the prostration of a sudden and violent impression upon the nervous centres. The necessary duration of the anæsthetic condition, when gradually induced, must for the same reason be more satisfactorily ensured. A rapid anæsthesia, although complete, is apt to be of very short duration, and the patient may recover his sensibility as suddenly as he lost it. This does not occur so frequently when the anæsthetic has taken effect in a slower manner, and may be explained by supposing that a volume of the blood first charged in the lungs passes to the brain and narcotizes the patient, and that the blood which remains in the extremities, not yet touched by the vapor, will, if the process be arrested, in its turn flow through the brain and at once revive him. On the other hand, a more protracted inhalation, such as is usually the case with ether, ensures the gradual saturation of the whole circulation. Here, too, is an additional illustration of the important statement before made, that unless an operation is to be short, the surgeon should not be content with the appearance of the first symptoms of insensibility, but push the anæsthesia till the patient snores.

The advantages of chloroform in respect to portability are of little consequence in civil practice. But when an agent so much more compact than ether can be used in military hospitals and on the battle field, the necessity of reducing baggage to its minimum demands, it has been alleged, that the less bulky anæsthetic be preferred, and this argument is usually strengthened by a reference to the results of its use in the Crimea, viz., two deaths in 30,000 cases, one in the French and one in the English army. These statistics, apparently so conclusive, will not, as your Committee believe, stand the test of examination. How was it possible to obtain accurate information from every battery, rifle pit, or trench, where chloroform was given? What surgeon would not, under the circumstances in which it must constantly have been administered, be liable often to attribute to the effects of an injury fatal results really due to the anæsthetic—especially if it is true, as Dr. Snow states in a communication to Mr. Guthrie,* that to “take 10 minims of chloroform into the lungs when insensibility is almost complete, must be attended with danger.” A perusal of the letter of Dr. J. Hall, Inspector General of Hospitals in the Crimea, to the Director General at London,† or of a paper by Dr. Mouat, Deputy Inspector General in the English Army, read by him in the Crimea to the Crimean Medical Society,‡ will persuade the reader that more than one death from chloroform occurred during the war, amongst the British troops. Such certainly is that

* Commentaries, London, 1855, p. 39.

† Med. and Surg. History of the British Army which served in Turkey and the Crimea during the War against Russia. “Blue Book,” p. 269.

‡ Med. Times and Gazette, Aug. 30, 1856.

gentleman's impression, and it does not appear to have been either opposed or contradicted by the other members of the Crimean Society. Dr. Lente says that the assertion of Baudens, that only one fatal case happened amongst the French from chloroform, is denied by other surgeons, who themselves saw deaths occur from its use.* But whether this is true or not, that 30,000 soldiers should escape the dangers of chloroform, is no argument in its favor. It is well known that a vast number of missiles are thrown in battle without touching a single person, yet no one would pretend that this fact diminishes in the slightest degree the danger in the flight of a solitary bullet. The position of chloroform is precisely identical. The amount of ether required for army use, if properly administered and economized, is not very great. The quantity necessary for a regiment, especially one with easy access to its supplies, cannot add much encumbrance to the stores of the hospital department. At all events, it might be used to a certain extent, and the soldier's life in a degree secured against the treachery of one foe not less dangerous than the bullets of the enemy.

The objection to ether on account of its inflammability does not apply with any more force to its use in armies than in private practice, and ordinary precautions will provide against accident from this cause.

The more trivial the operation for which chloroform is inhaled, the more care should be taken in its use, fully two thirds of the deaths from its effects having occurred during the performance of minor operations.† The very opposite of this is true of ether. Only after long, protracted inhalation, during operations accompanied by great loss of blood, or involving great prostration of the general system, can any possible anxiety be felt.

The friends of chloroform admit that "over 150 deaths" have already occurred from its use.‡ This, it is urged, is only about $11\frac{1}{2}$ per year since its first application in 1848. Had as many fatal cases happened in that period from opium, aconite, arsenic, strychnia, or other poisonous drugs, administered by regular physicians, would the use of such agents still be authorized? And how much stronger would the case be, did they produce death in the unexpected and sudden manner in which chloroform strikes its victims!

The objections to chloroform apply with equal force to chloric ether, which is chloroform diluted with alcohol, to amylene, and to the mixture of sulphuric ether and chloroform, in whatever proportion. The dangers of this last are well shown in a case reported in the Appendix, where a boy 5 years of age died within three or four minutes after breathing a mixture of four parts of ether and one of chloroform. The addition of chloroform to ether being unnecessary, only renders dangerous an anæsthetic

* American Journal of Medical Sciences, April, 1861.

† British Med. Journal, Feb. 21, 1857. Med. Times and Gazette, May 12, 1860.

‡ Dublin Med. Press, June 5, 1861.

which is otherwise safe, and is liable to lead to a carelessness in its administration which would not occur with chloroform, and might prove as dangerous as when that anæsthetic is alone used in an unadulterated state.* Of the new agent, "kerosolene," recently discovered in this city, the remarkable physical properties of which are so attractive, sufficient experience has not yet been had to authorize an opinion upon its future value.

Of the action of anæsthetics on the system, we have but an imperfect and inconclusive knowledge. The following statements are cited from the work of Lallemand, Perrin and Duroy, already referred to. This recent and elaborate treatise depends for its facts upon numerous experiments on animals, and upon such carefully-conducted researches as entitle it to confidence.

1st. Anæsthetics are neither transformed nor destroyed in the system, but are rapidly eliminated from it, chiefly by the lungs, and to a limited extent by the cutaneous surface. Chloroform and amylene being insoluble in water, no traces of them are ever found in the urine. Sulphuric ether being more soluble, a small quantity of this may be detected by re-agents in the renal secretion.

2d. The blood and the organs of animals dead from *etherism* (the name given to this special intoxication by the above-named authors) contain the anæsthetic agent employed, the presence of which is easily determined by special chemical research, and the following figures show in what proportion the blood and the principal viscera contain the anæsthetic, in reference for each of the agents to the quantity found in the blood.

SOURCE OF ANALYSIS.	CHLOROFORM.	SULPH. ETHER.	AMYLENE.
Blood,	1.00	1.00	1.00
Cerebral substance,	3.92	3.25	2.06
Liver,	2.08	2.25	1.00
Muscular tissue,	0.16	0.25	Traces.

From this it appears that anæsthetics accumulate in the cerebro-spinal system.

3d. It is not easy to explain the deaths from chloroform and amylene, or of ether (as sometimes seen in the lower animals), but it would seem probable, both from the phenomena which they present and the experiments which have been made, that they are the consequence of an abolition of the functions of the nervous system, and not of asphyxia.

The general conclusions which have been arrived at by your Committee may be summed up as follows:—

* It has been said that a mixture of ether and chloroform was employed with great success by the French in the Crimean war. There is no published documentary evidence to prove that such a combination was adopted. No mention is made of it by the Inspector-General at the head of the French Medical Service in the Crimea. On the contrary, a correspondence between that officer and the General-in-chief leaves no possible doubt as to the exclusive use of chloroform; his general remarks, also, render it certain that no other anæsthetic was substituted at any time during the war. (*Rélation, Médico-Chirurgicale de la Campagne d'Orient*. Paris, 1857. Pp. 123, 160 and 456.) In none of the Journals of the period, nor in the English Government Report of the Medical History of the War, is there any statement leading to the inference that a mixture of ether and chloroform was used by either army during that campaign, or anything which can authorize the supposition that the word "chloroform" is used as synonymous with "anæsthetic," and therefore includes in its meaning the combination said to have been employed. A point so important could not fail to be set forth in distinct terms in such careful reports as were made after the Crimean war.

1st. The ultimate effects of all anæsthetics show that they are depressing agents. This is indicated both by their symptoms and by the results of experiments. No anæsthetic should therefore be used carelessly, nor can it be administered without risk by an incompetent person.

2d. It is now widely conceded, both in this country and in Europe, that sulphuric ether is safer than any other anæsthetic, and this conviction is gradually gaining ground.

3d. Proper precautions being taken, sulphuric ether will produce entire insensibility in all cases, and no anæsthetic requires so few precautions in its use.

4th. There is no recorded case of death, known to the Committee, attributed to sulphuric ether, which cannot be explained on some other ground equally plausible, or in which, if it were possible to repeat the experiment, insensibility could not have been produced and death avoided. This cannot be said of chloroform.

5th. In view of all these facts, the use of ether in armies, to the extent which its bulk will permit, ought to be obligatory, at least in a moral point of view.

6th. The advantages of chloroform are exclusively those of convenience. Its dangers are not averted by its admixture with sulphuric ether in any proportions. The combination of these two agents cannot be too strongly denounced as a treacherous and dangerous compound. Chloric ether, being a solution of chloroform in alcohol, merits the same condemnation.

R. M. HODGES,
GEO. HAYWARD,
S. D. TOWNSEND,
C. T. JACKSON,
J. BAXTER UPHAM.

The foregoing report was accepted, and its conclusions adopted by the Society.

FRANCIS MINOT, *Secretary*.

Dr. C. T. Jackson, one of the Committee, objects and excepts to the clause in this report in which "all mixtures of ether and chloroform" are denounced; viz., to the words, "the dangers of chloroform are not averted by admixture with sulphuric ether," and to the terms "treacherous and dangerous compound" of ether and chloroform. He believes that a mixture of four measures of ether and one measure of chloroform may be employed without danger, or with very little danger, and that the risks from chloroform are diminished more than four fifths by this combination. He believes it to be necessary to have an anæsthetic agent of less bulk than ether, and not so dangerous as chloroform, for army uses, and is satisfied that this mixture, which he has employed and prescribed, completely answers the purpose required.

TABLE OF ALLEGED DEATHS FROM THE INHALATION OF ETHER.

No.	Operator or Reporter.	Date.	Locality.	Sex.	Age.	Operation, or purpose for which it was administered	Period after which death occurred.	Probable cause of death.
1	Figuiet.	1847	Auxerre, France.	M.	55	Cancer of Breast.	During op.	Asphyxia.
2	Robbs.	1847	England.	F.	21	Tumor of thigh.	40 hours.	Shock and exhaustion.
3	Eastment.	1847	"	M.	11	Amputation of thigh.	3 hours.	Shock of accident & op.
4	Nunn.	1847	"	M.	62	Lithotomy.	50 hours.	Shock and exhaustion.
5	Taylor.	1847	"	—	—	—	—	Case similar to preceding
6	Robinson.	1847	"	M.	70	Amputation.	4 days	Shock, exhaustion, age.
7	Kopezky.	1847	Vienna, Austria.	M.	—	Amputation of thigh.	6 days.	Pneumonia. [health.
8	Roel.	1847	Madrid, Spain.	F.	50	Cancer of Breast.	8 hours.	Shock and state of gen'l
9	Kopezky.	1847	Vienna, Austria.	F.	—	Amputation of arm.	5 days.	Pleuritis.
10	Jobert.	1847	Paris, France.	F.	33	Cancer of breast.	16 days.	Erysipelas & bronchitis.
11	Jobert.	1847	"	F.	47	Amputation of thigh.	15 days.	—
12	Hendzoza.	1847	Barcelona, Spain.	F.	60	Amputation of leg.	15 hours.	Shock of accident & op.
13	Schuh.	1847	Vienna, Austria.	F.	26	Amputation of thigh.	4 days.	Pyæmia.
14	Kopezky.	1847	"	M.	—	Hæmatocele	13 days.	"
15	R. D. Mussey	1847	N. Hamps., U. S.	M.	—	Lithotomy.	5 to 6 hours.	Shock.
16	Johnson.	1853	Virginia, U. S.	F.	—	Excsect. of entire lower jaw.	60	Shock, hæmorrhage, &c.
17	Forbes.	1847	England.	Boy.	—	Lithotomy.	Many days.	Intense local inflam.
18	Humphry.	1848	"	M.	—	Amputation of arm.	3 days.	—
19	Barrière.	1852	Lyons, France.	F.	55	Excision sup. maxilla.	During op.	—
20	De Oettingen.	1847	Dorpat, Russia.	M.	70	Amputation of thigh.	"	Shock.
21	Lewis.	1847	Boston, U. S.	M.	—	Amp. at shoulder-joint.	12 hours.	Shock of accident & op.
22	Riehet.	1847	Paris, France.	M.	43	"	11 days.	Capillary bronchitis.
23	—	1860	New York, U. S.	—	—	Op. strang. hernia.	—	[hæp. fat. deg. of heart.
24	W. H. Mussey.	1860	Ohio, U. S.	M.	50	Surgical examination.	15 to 20 min.	Comm. frac. osium., per-
25	—	1860	New York, U. S.	—	—	"	During inhal.	Asphyxia?
26	Rigaud.	1847	Paris, France.	M.	63	"	4 days.	Bronchitis.
27	Bassett.	1847	Alabama, U. S.	—	—	Actual cauterization.	During inhal.	Tetanus.
28	Roux.	1847	Paris, France.	—	—	Tetanus.	—	"
29	Clark.	1859	New York, U. S.	F.	27	Intense headache.	During inhal.	Disease of the brain.
30	—	1855	Boston, U. S.	M.	32	Delirium tremens.	—	Delirium tremens.
31	Piedagnel.	1847	Paris, France.	M.	—	—	15 days.	Arachnitis.
32	Eve.	1849	Kentucky, U. S.	M.	—	Exhilarating effects.	4 days.	Symptoms of meningitis.
33	Miller.	—	"	F.	15	"	12 days.	—
34	Payne.	1851	London, Eng.	M.	—	As an anodyne.	—	Asphyxia.
35	Velpéau.	1847	Paris, France.	F.	60	Tumor of breast.	3 days.	Acute pulmonary disease
36	Roux.	1847	"	—	—	Opening of an abscess.	3 days.	Exhaustion.
37	Roux.	1848	"	M.	82	Lithotomy.	—	—
38	Bergson.	1847	Berlin, Prussia.	M.	—	Lithotriety.	—	—
39	Velpéau.	1847	Paris, France.	—	—	Excision of tonsils.	—	Asphyxia.
40	Scoutetten.	—	Metz,	M.	50	—	4 hours.	—
41	Giraldes.	1860	—	—	—	—	—	—

ETHER AND CHLOROFORM COMBINED.

1	Crockett.	1857	Virginia, U. S.	M.	5	Fatty tumor.	At end of op.
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ETHER AND SUBSEQUENTLY CHLOROFORM.

1	March.	1854	Albany, U. S.	F.	18	Tumor of neck.	2 hours.
2	Vallette.	1858	Lyons, France.	—	—	—	During inhal.

CHLORIC ETHER.

1	—	1853	Lynn, U. S.	F.	—	Extraction of tooth.	During inhal.
2	Haynes.	1852	N. Hamps., U. S.	F.	—	Tumor of thigh.	15 to 20 min.
3	Ingalls.	1852	Chelsea, U. S.	M.	20	Eversion of toe-nail.	During inhal.

CHLORIC ETHER AND CHLOROFORM.

1	Foltz.	1852	East Boston, U. S.	—	—	—	—
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RESUME OF 41 CASES OF ALLEGED DEATH FROM SULPHURIC ETHER.

In 6 cases death occurred in from 11 to 16 days.	In 3 cases death occurred in from 3 to 6 hours.
In 9 " " " " " 3 to 6 days.	In 1 " " " " " from 15 to 20 minutes.
In 1 " " " " " after "many days."	In 4 " " " " " during the operation.
In 2 " " " " " from 40 to 50 hours.	In 4 " " " " " inhalation.
In 3 " " " " " from 8 to 15 hours.	In 8 " " the time which elapsed is not stated.

There are also a certain number of cases so indefinite in their details, or where the cause of death is so manifestly unconnected with the inhalation of sulphuric ether, as not to admit of being tabulated. The ascertained facts of these are stated in the Appendix.

APPENDIX.

The following enumeration of cases comprises those contained in the tables of Scoutetten, Bouisson, Snow, Kidd, and of all other authors known to the Committee. Whenever it has not been possible to verify an assertion, as that, for instance, of Trousseau, the statement of cases which is made is given as it occurs.

1. Hotel Dieu of Auxerre, France, 1847. A man, 55 years old, was operated on for cancer of the breast, after having breathed sulphuric ether, and died during the operation with evident symptoms of asphyxia. The ether was inhaled from a Charrière's apparatus. "The want of care in administering the ether, which was given in a manner likely to produce asphyxia, and the insufficient means used for the restoration of the patient, sufficiently explain the cause of death." (*Exposition et Histoire des Principales Découvertes Scientifiques modernes*, par Louis Figuier, Paris, 1851, t. ii, p. 282. *Gaz. Médicale*, 4 Mars, 1848, p. 170.)

2. Mr. Robbs, Grantham, Eng., 1847. Ann Parkinson, aged 21, inhaled sulphuric ether several times, experimentally, preparatory to an operation for removing a large, malignant tumor in the soft parts of the thigh. At the first trial, after breathing 15 or 20 minutes, she became hysterical and comatose for two hours; at the second trial she became comatose in 4 minutes, recovering rapidly. The next day she inhaled it for 10 minutes prior to the operation, which lasted half an hour, and during which she manifested great pain, declaring afterwards that she felt every cut that was made; she was in a state of great exhaustion when the operation was completed, being obliged to have brandy before it was quite over, and more when she was put to bed. She was conscious from the time of the operation to her decease, 40 hours afterwards, but spoke in a low, faint voice. All the natural functions were sluggish.

At the autopsy it was found that there was some congestion of the brain and lungs, and the blood was fluid. There were no other unusual appearances. (*London Medical Gazette*, Vol. 39, p. 585.)

3. Mr. Eastment, Wincanton, Eng., 1847. Albin Burfitt, 11 years old, received a compound fracture of the left femur, with great laceration of the soft parts, and a simple fracture of the right thigh, from entanglement in machinery. Amputation was necessary. Little blood had been lost, and at the end of 8 hours the reaction and strength were sufficient for the operation. Sulphuric ether was given, and after 3 or 4 minutes apparently had its effect, but the first incision caused terrible pain. The inhalation was therefore repeated for 3 minutes, insensibility was produced, and the operation was completed without much loss of blood. The patient, however, remained exhausted, delirious and intoxicated, and died in three hours, his delirium changing to syncope. No autopsy was made. (*London Med. Gazette*, Vol. 39, p. 631.)

4. Mr. Nunn, Colchester, Eng., 1847. Thomas Herbert, aged 52, inhaled sulphuric ether for 8 minutes, at intervals, but without marked effect. The operation of lithotomy was then performed, requiring ten minutes, the stone being grasped with difficulty. The patient recovered from the effects of the ether, but remained exhausted, without reaction, for 24 hours. He then had chills, one of which lasted 20 minutes, and fell into a state of increasing weakness and collapse,

which, at the end of 50 hours from the operation, terminated in death. At the autopsy, the meninges of the brain were found congested; and none of the substance of the brain was found firm. The heart was flabby and empty; blood, fluid. The left kidney was congested; bladder as after lithotomy. Other organs not remarkable. (*London Medical Gazette*, Vol. 39, p. 414.)

5. Mr. Taylor says that a case, similar to Mr. Nunn's, where sulphuric ether was inhaled, "was privately communicated to him by an eminent London surgeon, and in which he stated that there could be no doubt of the vapor having been the direct cause of death. The patient sank after the operation, under symptoms which in similar circumstances he had never before witnessed." (*On Poisons*, Lond. Ed., p. 783.)

6. Mr. Robinson, Eng., 1847. A gentleman, aged 70, breathed sulphuric ether for an amputation, but was not completely affected by it, as he gave signs of suffering, and said afterwards that he felt pain during the operation. The immediate effects, such as they were, passed off speedily, and he was able to take some wine before being removed from the table. He seemed to do pretty well for a time, though never rallying satisfactorily. He however lived nearly 4 days, presenting various anomalous nervous symptoms; amongst others, slightly recurring delirium. The stump did not take on a healthy reparative process. (*British and Foreign Med.-Chir. Review*, Vol. 23, p. 558.)

7. Kopezky, Vienna, 1847. Amputation of the thigh, under sulphuric ether, for white-swelling of the knee, in a man, lean and cachectic, from long duration of the disease. On the third day from the operation the wound became gangrenous; on the fourth day he had dyspnoea, and on the sixth he died without any considerable rigor or heat of the skin having been noticed.

At the autopsy, the lungs were found inflamed at various points, and the femoral artery, for an inch above the wound, was also inflamed. The heart and great vessels were filled with soft, pale coagula. (*Warnung vor der Schädlichen Wirkungen der Äther Einathmung*, B. Kopezky, Wien, 1847.)

8. Roel, Madrid, 1847. Dolores Lopez, an intemperate female, aged 50, is in a condition of hectic and has shortness of breath. Inhalation of sulphuric ether for the removal of a scirrhus tumor of the breast, weighing $3\frac{1}{4}$ pounds. The anæsthesia was incomplete, though the pain of the operation was slight. The loss of blood was not great. From 10 o'clock, when she was etherized, till $12\frac{1}{2}$ o'clock, she remained stupid. Soon afterwards the pulse became thready, and there was sub-delirium. In about 8 hours from the operation she died.

At the autopsy, the firm, arborized brain was found infiltrated with serum both externally and internally. Sinuses full. The lungs show signs of old trouble, and are partially congested. Blood, fluid. (*Ueber Äther Rausch*. E. Nathan, Hamburg, 1847.)

This case is cited by the operator and by M. Chambert, as a characteristic one, of death from ether.

9. Kopezky, Vienna, 1847. The arm of a female was amputated under sulphuric ether, on account of a crushed hand and elbow-joint. A simultaneous injury of the ankle-joint seemed unimportant. For two days the patient did well. On the third, the wound became foul, the injury of the ankle inflamed and looked sloughy. The patient

became feverish, drowsy, jaundiced, delirious, had dyspnœa, and without any rigors died on the 5th day after the operation.

At the autopsy a slight exudation was found on the inner surface of the dura mater. There was inflammation of the pulmonary and costal pleura. The blood was fluid, and the heart was filled with soft, pale coagula. (*Warnung vor der Schädlichen Wirkungen der Æther Einathmung.* B. Kopezky, Wien, 1847.)

10. Jobert, Paris, 1847. On the 15th of January, a cancerous tumor was removed from the breast of a female, aged 33. To do this, sulphuric ether was exhibited, but at the end of 13 minutes insensibility had not been produced. The ether was therefore abandoned, and the operation commenced. The patient cried out, and complained of her intense suffering. During the remainder of the day, and the next, she had a cough, with intense headache and restlessness; mucous râles were detected on auscultation. On the 22d, erysipelas made its appearance around the wound; on the 23d, and following days, bronchial râles filled the whole chest; the erysipelas spread, and covered all the posterior part of the trunk. The prostration was complete, and the cough obstinate. From the 27th to the 30th, the erysipelas extended to all parts of the body; chills and vomiting occurred, and on the 31st she died.

At the autopsy, a diffused redness of the mucous membrane of the bronchi, and engorgement of the lungs, were found. (*Des Effets physiologiques et thérapeutiques des Ethers.* H. Chambert, Paris, 1848.)

11. Jobert, Paris, 1847. A female, aged 47, underwent amputation of the thigh for white-swelling. Perfect anæsthesia was induced by breathing sulphuric ether for four minutes. After the operation, the pulse and temperature of the body failed, and there was insensibility for several hours. It was subsequently observed that there was but little traumatic fever. Seven days after the operation, there appeared an ocular and facial neuralgia, and a contraction of the masseter, sterno-mastoid, abdominal and thoracic muscles. These were looked upon as symptoms of tetanus, and the patient finally died from a variety of lesions of the circulatory, nervous and respiratory systems, 15 days after the operation.

The autopsy showed the vessels of the pia mater of the brain, and spinal cord to be greatly injected. The tissue of the brain, especially at the optic thalami and corpora striata, was also much injected. The ventricles of the brain were well filled with serum. The pharynx and œsophagus were quite reddened, and covered with pus, as also were the trachea and bronchi. (*Des Effets physiologiques et thérapeutiques des Ethers.* H. Chambert, Paris, 1848.)

M. Jobert considered this a case of poisoning of the blood, due to the anæsthetic. The appearances could not be laid to pyæmia, but were incontestably due to the effects of ether. In this opinion, M. Chambert, the reporter, coincides.

12. Mendoza, Barcelona, Spain, 1847. A female, aged 60, underwent amputation of the leg, three days after suffering a comminuted fracture of the foot, which had been crushed by a wheel. Sulphuric ether was given, but it caused great uneasiness and cough; insensibility was, however, obtained at the end of a quarter of an hour, but it lasted only a few minutes. After attempts at re-etherization had been continued for half an hour, an hour was given her to recover her strength. Then she breathed it again and was put to sleep in 6 minutes.

She called out a little when the skin was cut, but afterwards remained silent. Although the pulse was full, the patient's exhaustion was manifest, and after the ligatures were applied she had a violent nervous attack, which was overcome by stimulants and the admission of fresh air. She then lay quiet, but exhausted, answering questions with a weak voice, though remembering nothing which had passed. This forgetfulness persisted, she became stupid, with a weak pulse, and heavy and stertorous breathing; her strength failed more and more, and she died 15 hours after the amputation. (*Révue Médicale*, April, 1847.)

13. Schuh, Vienna, 1847. A female, aged 26, had her thigh amputated for white-swelling of the knee-joint. Her condition was one of hectic, and she had scrofulous sores and enlargements in various parts of the body. She inhaled sulphuric ether for the operation, and the anæsthesia lasted 10 minutes. Although the patient soon spoke rationally, her memory did not return for three hours. In the evening she felt weak, her head was hot, and she was in an excited condition. The following day she slept nearly all the time, only waking to drink; her pulse was quick and feeble. During the ensuing night she was delirious, and the pulse became imperceptible, and she had chills and pain in the abdomen. Afterwards the extremities became cold, the discharge from the wound offensive, the stump painful along the course of the vessels, and the wound gangrenous. She died on the 4th day.

At the autopsy the pia mater was found slightly injected: the lungs were healthy, as was the heart, which contained some soft coagula. In the liver there were several small abscesses, and a very large number in the spleen. The vessels of the stump were inflamed as far as the pelvis. (*Warnung vor der Schädlichen Wirkungen der Äther Einathmung*. B. Kopezky, Wien, 1847.)

Professor Schuh said that this case left no doubt that the uncommon strength of the narcosis helped, if it did not cause the gangrene and formation of pus.

14. Kopezky, Vienna, 1847. A large hydrocele, with partially bloody contents and uncommon thickening of the tunica vaginalis, occurring in a pale, lean, very timid young man, was treated by incision, after inhaling sulphuric ether. All went well for several days. The thick tunica vaginalis softened and granulated throughout. The patient was on full diet, and no doubts were entertained as to his recovery. Twelve days after the operation the discharge of pus ceased suddenly, the cord became tender, and the wound was covered with a light-grey, lymph-like coat; the surrounding parts became œdematous, and the wound looked as if attacked by hospital gangrene. The next day he became delirious, had vomiting, although the tongue was clean, and died.

At the autopsy, the meninges of the brain were found infiltrated with serum, and the brain itself was slightly engorged with blood. Three small abscesses were found in the cellular tissue of the spermatic cord. Greenish-yellow coagula were entangled with the valves of the heart. (*Warnung vor der Schädlichen Wirkungen der Äther Einathmung*. B. Kopezky, Wien, 1847.)

The reporter repudiates the idea of hospital gangrene or pyæmia being a cause of death in this case.

15. Dr. R. D. Mussey, New Hampshire, U. S. A young man was

operated on for stone in the bladder, by the bi-lateral method. He had been very much exhausted by suffering, and obtained snatches of sleep only by large and frequently repeated doses of opium. Surgical interference seemed to promise almost nothing, yet it was preferred. It was a slow and tedious process. Sulphuric ether was inhaled. Immediately after the operation, the patient was put to bed, and sunk into a disturbed sleep and died five or six hours afterwards. The stone was a mulberry one, and as large or larger than any Dr. Mussey had ever seen. Dr. Mussey says, "I do not suppose that the ether had much, if anything, to do in shortening life; I had the opinion, and still have, that, prostrated as he was, he died from the shock of the operation. (*Committee's Correspondence.*)

16. Dr. C. P. Johnson, Richmond, Va., 1853. A negress of middle age had, three months previously, undergone resection of the parts adjoining the symphysis of the lower jaw, for an osteoid cancer of the parts. The disease re-appeared and rapidly invaded the neighboring structures, involving a considerable portion of the remnants of the body and ramus of each side. The patient's appearance was cachectic. A complete disarticulation was decided upon, and sulphuric ether was administered. The operation was tedious. After the separation of the diseased mass, the branches of the internal maxillaries gave so much trouble, that one, if not both, the carotids were tied. The regularity of the patient's stertorous breathing was not interrupted till just before the close of the operation. As soon as this was noticed, some brandy and water was passed into the fauces, but was regurgitated with the production of one or two spasmodic actions about the glottis, which were the last vital manifestations that occurred. Artificial respiration, frictions, &c., induced no response.

The tissues were found exsanguine at the autopsy. (*Committee's Correspondence.*)

17. Dr. Forbes, London, 1847. A boy underwent lithotomy. All the primary effects of the sulphuric ether which he inhaled passed off as usual. He lived "many days," and although said to have died from the effects of the ether, his death, in the opinion of the reviewer who cites the case, was due to the effects of local inflammation. (*British and For. Med. Chir. Review*, Vol. 23, p. 558.)

18. Dr. G. M. Humphry, Cambridge, Eng., 1848. "A lad died with peculiar symptoms of oppression of the sensorium, preceded by delirium, three days after amputation of the arm on account of accident. Sulphuric ether was administered; its effect was complete and soon passed off, so that he slept well, and the delirium did not appear till the next morning. We cannot with certainty attribute this case to the ether." (*Provincial Med. and Surg. Jour.*, Aug. 9th, 1848.)

19. M. Barriere, Lyons, France, 1852. A female, aged 55, in a weak and bad state of general health, underwent excision of the superior maxillary bone. Sulphuric ether was given from a sponge placed in a bladder. Death occurred during the operation. It was thought possible that it might have been due to the hæmorrhage. (*Gazette des Hôpitaux*, June 18, 1853.)

20. Dr. G. de Oettingen, Dorpat, Russia, 1847. Constantly increasing anæmia, on account of a gangrenous ulceration of the leg, rendered amputation necessary in the case of an old man, 70 years of age. Sulphuric ether was administered from a common bottle having an opening large enough to include the nose and mouth of the patient.

The operation was completed, but the arteries were not tied when the indications of approaching death were noticed, and which shortly occurred with symptoms of syncope. There was no hæmorrhage.

The autopsy gave no explanation of the death. (*Committee's Correspondence.*)

21. Dr. Winslow Lewis, Boston, 1847. A young man of very intemperate habits, during a state of intoxication, caught his arm in the large cog-wheels of a dough-kneading machine, by which it was so torn and lacerated as to require disarticulation at the shoulder-joint. The patient was in a very weak and feeble condition when sulphuric ether was administered and the limb removed. Little blood was lost, either before or during the amputation. He recovered from the anæsthesia, but died the next day, about twelve hours after the operation.

As one of the earlier capital operations performed with anæsthetics, it was thought that ether might have had something to do with the result of this case, but the patient's condition was such that his death was to be anticipated from the combined effects of his habits, the accident and the operation, whether ether had been used or not. (*Committee's Correspondence.*)

22. M. Richet, Paris, 1847. A man, aged 43, underwent amputation at the shoulder-joint for an enormous tumor developed about the upper part of the humerus. During the dressing, the patient fainted three times. Subsequently his strength gradually failed, a cough set in, and he died on the eleventh day after the operation. M. Richet attributed the death to the ether, but his *interne* exhibited the lungs to the Anatomical Society as specimens of capillary bronchitis. (*De l'Ether Sulphurique*, par F. J. Lach, Paris, 1847.)

23. Dr. ———, New York, 1860. "A patient with hernia had been laboring under symptoms of strangulation for some time, and was in a desperate condition. A cutting operation for his relief was resolved upon. He was fully anæsthetized with sulphuric ether, and suddenly, during the progress of the operation, showed symptoms of prostration and soon died." (*Committee's Correspondence.*)

24. Dr. W. H. Mussey, Cincinnati, O. A man, 50 years old, by the upsetting of his wagon had been dragged 30 feet and then rolled down an embankment 8 feet high, when his wife, weighing 205 lbs., fell upon him. The patient himself weighed 230 lbs., was occasionally intemperate, having had a debauch ten days previous to his accident, and been quite sick in recovering from it. After his injury he had to be transported a mile in order to reach his house, and during the thirty hours ensuing he suffered intense pain, and took four grains of morphine in divided doses. In order to examine an injury which had befallen his hip, four ounces of sulphuric ether (it being the unanimous opinion of those present that his condition would not permit the use of chloroform,) was administered with great care and precaution. "At the time of seizing the limb for examination,"—we quote from Dr. Mussey's own account,—“a peculiar shortness of breath of an asthmatic character was noticed, and it was stated that he was subject to attacks of asthma. On observing this phenomenon, the use of ether was suspended and not resumed; the manipulation was, however, proceeded with, the patient screaming out and writhing with pain, and apparently perfectly conscious. Seeing that his lips were purplish and his breathing very short, I proceeded to administer for his relief. He called for water; a little was given him, and a little vinegar was

put in it; finally, some whiskey was procured and administered in warm water. But little, however, was taken. The patient complained that he was suffocating, and the tongue was drawn out, though there was no lack of control of it, as he put it out to take stimulants. He was rolled upon his side; water was thrown in his face; first cold, then hot water applied to his forehead; the Marshall Hall method of artificial respiration, and the additional one of inflating the lungs from my own lungs, with forced expulsion of air, and flagellation of buttocks, were continued 15 to 20 minutes, when the patient was abandoned as dead."

At the autopsy, a space six inches in diameter in the right iliac and lumbar region was found blackened and purple with extravasated blood, and this extended anteriorly and superiorly upon the wall of the abdomen. It also extended through the entire pelvic cavity, and beneath the pelvic fascia there was a large deposit of blood. The source from which this emanated was a most extensive fracture (which in fact might be called comminuted) of the os innominatum, radiating in all directions from the acetabulum to the circumference of the bone. There was a large amount of adipose tissue upon and around the pericardium, and fatty deposits on the auricles of the heart, which had no structural disease other than an absence of the usual redness and firmness of the tissue. Nothing of importance presented itself in the rest of the examination.

"A lengthy discussion arose in the Academy of Medicine of Cincinnati,"—where this case was presented,—“occupying two evenings of its session, in which two members contended that the case was clearly one of death from ether. Of the remaining disputants, two thought ether possibly auxiliary, while the majority considered ether not at all responsible.” (*Cincinnati Lancet and Observer*, Jan. 1861.)

25. Dr. ———, New York, 1860. “A very large, old, scrotal hernia had from some cause become irreducible. Inhalation of sulphuric ether was resorted to, and, while the patient was under its full influence, the hips being raised and the head allowed to be forcibly flexed upon the chest, the taxis was resorted to. The large mass of intestines very suddenly receded into the abdomen, and just at the moment the patient was noticed to be in a dying condition, from which he could not be recovered.” (*Committee's Correspondence*.)

It is intimated that too little attention was probably given to the state of the respiration and the pulse. The absence of an autopsy in this instance is greatly to be regretted.

26. M. Rigaud, Paris, France. A man, 63 years old, suffering for a long while from chronic bronchitis and asthma, underwent taxis for a strangulated hernia of two days standing. Sulphuric ether being administered, reduction took place, after fifteen minutes manipulation. The patient was suffering, in addition, from trismus. During the night, dyspnoea, cough and thirst, were complained of. These chest-symptoms persisting, death took place on the fourth day, during an asthmatic paroxysm.

At the autopsy, emphysema and the ordinary appearances of chronic bronchitis were noted. (*De l'Ether Sulphurique*, par F. J. Lach, Paris, 1847.)

27. Dr. J. Y. Bassett, Alabama, 1847. It was proposed to apply the actual cautery in a case of tetanus. Sulphuric ether was administered by a dentist. “At this time the patient's pulse was good,

and there were no signs of an immediate extinction of life. In one minute the patient was under its influence; in a quarter more he was dead—beyond all my efforts to produce artificial respiration or to restore life. All present thought he died from inhaling ether.” (*Amer. Jour. Med. Sciences*, Vol. 18, p. 293.)

28. M. Roux, Paris, 1847. A patient, in an advanced stage of tetanus, following upon the removal of one of his testicles by himself, was treated by the inhalation of sulphuric ether. In two minutes, complete insensibility was produced, which lasted nine minutes and then passed off, so that questions were readily replied to. Four minutes afterwards he became pale, the pulse failed, and death took place “at the end of the visit.” (*De l’Ether Sulphurique*, par F. J. Lach, Paris, 1847.)

29. Dr. A. Clark, New York, N. Y., 1859. A female, aged 27, entered the Bellevue Hospital on account of frequent attacks of intense headache, accompanied by double vision, vertigo, nausea and vomiting. During the last four or five weeks of her life, there was unsteadiness of gait and irregularity in the movements of the hands, and these symptoms were increasing. The inhalation of sulphuric ether was the only thing which relieved the headache, and had been used three times with complete success. On the 25th of April, she inhaled it again on account of the severity of the pain. In a few moments, voluntary respiration ceased, the countenance became livid, and the pulse rapid, though of tolerable strength. Artificial respiration was kept up for seven hours, together with other means to preserve life, but at the end of that time they were abandoned as fruitless.

At the autopsy, a tumor in the right lobe of the cerebellum was found, $2\frac{1}{2}$ inches wide and $\frac{3}{4}$ of an inch thick. It resembled colloid cancer, and pressed upon the medulla oblongata. The blood was fluid. (*New York Monthly Review and Buffalo Journal*, Oct. 20, 1859.)

Dr. Clark quotes two cases of death from tumor of the cerebellum, reported in a Liverpool Journal, where the termination was as abrupt and unexpected as in this.

30. Mass. General Hospital, 1855. A man, aged 32, much addicted to drinking, sustained a compound fracture of the left leg, the tibia protruding an inch. Five days after the accident, delirium tremens appeared. On the second day of the attack, the patient’s wife was told that he could not live. He was exhausted, bathed in perspiration, and had a feeble and rapid pulse. His delirium was such that the house pupil undertook to etherize him. He made the usual struggles, and had some opisthotonic spasms. The ether had been continued some minutes, when the breathing was noticed to be abdominal, although the pulse was quick and sufficiently strong. Within a quarter or half a minute, the pulse suddenly ceased. The lips were not blue, and the head and hands were warm. The patient was dead, and no efforts to restore life were of avail.

At the autopsy, the sub-arachnoid fluid was found in larger amount than usual. Nothing remarkable about the brain. The heart was soft and flaccid, and contained some yellow, gelatinous coagula in the right side, and a small quantity of fluid blood in the left. There was no valvular disease. The liver was fatty. The kidneys and other organs were healthy. (*M. G. H. Records*, Vol 65, p. 20.)

31. M. Piedagnel, Paris, 1847. A patient was admitted to the Hospital of St. Antoine, on account of a slight cough. One of the

residents induced him to inhale sulphuric ether for the extraction of a tooth. This he did on three consecutive days, without producing insensibility. The first day's inhalation lasted twenty minutes, and the second day's thirty minutes. Finally, he determined to have the tooth out without ether. Seven or eight days afterwards he was attacked with fever and loquacious delirium, and died in fifteen days from the first etherization. The autopsy showed intense arachnitis. M. P. was convinced that the ether was the cause of this inflammation. (*Journal de la Soc. Méd. d'Emulation*, June 2d, 1847.)

32. Dr. P. F. Eve, Kentucky, 1849. A medical student inhaled two ounces of sulphuric ether, on account of its exhilarating effects. The time spent in inhaling this amount was reported to have been considerable. He became furiously excited, and it required several persons to control him. He was finally forced upon a bed, where he fell asleep. On being awakened he again became excited, so much so that cold water was dashed over him. He then went to his bed again, and nothing special was noticed till the next morning, when he awoke perfectly rational, but complaining of great pain in his forehead. He was prescribed for, and subsequently a consultation was held. Symptoms of meningitis were developed, and persisted, in spite of all treatment, and he died four days after the inhalation. (*Am. Jour. Med. Science*, Vol. 18, p. 293.)

No autopsy was made, nor is anything told of the previous history and condition of the patient.

33. Dr. Miller, Kentucky. A young lady, 15 years old, made five trials at inhaling sulphuric ether for amusement. It left an uncomfortable feeling, but she was out during the two following days, and on the third went to church. That evening she began to feel sick, and subsequently became delirious, "evincing alarm at imaginary dangers, and speaking of the ether which she had inhaled as being the cause of her illness; she declared, in her lucid intervals, that she had suffered ever since she breathed it, and cautioned those around her against its use."*****"When any subject was introduced, she spoke rationally upon it for a moment, and then turned to some other, frequently to the experiments with the ether. Her nights became sleepless, and were spent in screaming and loud talking upon all subjects, until she finally sank into a comatose condition, and died on the twelfth day. (*Phila. Med. Examiner*.)

The three cases just given (Nos. 31, 32, and 33), and the remarks cited from Dr. Mitchell and the *Mémorial de Rouen* in a subsequent place, present the striking coincidence of death from meningeal or intra-cranial inflammation many days after the inhalation of ether, administered by incompetent persons, by way of sport. The mode of administration absolves the anæsthetic from any responsibility. It is not surprising that an intoxication, such as results from ether, should, especially in children, lead to a fatal issue in the manner described.

34. Mr. Payne, London, 1851. An inquest was held on the body of a man found dead in his bed. It appeared that the subject of this investigation had gone to his bed-room, saturated a towel with ether, which he was in the habit of breathing, got into bed and pulled the clothes over his head. The vapor overpowered him, and he was thus suffocated in the atmosphere of ether which he had created. The verdict was, "accidental death." (*Atlas* [Lond. newspaper], Nov. 22, 1851. Cited in *Am. Jour. Med. Science*, Vol. 23, p. 549.)

35. M. Velpeau, Paris, France. A female, aged 60 years, having had asthma for 7 or 8 years, breathed sulphuric ether for 20 minutes, and then underwent an operation for the removal of her breast, for a tumor as large as the fist. On the next day the patient was perfectly well; on the third, the respiration became labored, but without cough, the tongue coated, the appetite disappeared, and there was intense thirst. Death took place in the evening.

At the autopsy the lungs were found engorged, and presented an appearance simulating pulmonary apoplexy. The bronchial mucous membrane was of a violet-red color. The heart and other organs were natural. (*De l'Ether Sulphurique*, par F. J. Lach, Paris, 1847.)

36. M. Roux, Paris, France. An abscess in the region of the hip is opened after complete insensibility from sulphuric ether, in a man who for a long time had suffered from hip-disease, and was in a very exhausted state. During the rest of the day, he had sleepiness, vertigo, a bewildered expression and difficulty in his speech; he was with difficulty aroused, immediately falling back into the state of stupor. This semi-comatose state lasted three days, when the patient died.

At the autopsy, the membranes, and the brain itself, were found much injected. The lungs were congested, and there was general redness of the bronchial mucous membrane. The blood was fluid. (*De l'Ether Sulphurique*, par F. J. Lach, Paris, 1847.)

37. M. Roux, Paris, 1848. An old man, 82 years of age, breathed sulphuric ether, was cut for stone, and died. (*Des Effets physiologiques et thérapeutiques des Ethers*. II. Chambert, Paris, 1848.)

M. Chambert considers this case as a very doubtful one, and therefore gives no details.

38. M. Bergson, Berlin, 1847, refers to the case of an old man, said to have died in consequence of lithotomy under ether. (*Die Medicinische Anwendung der Aetherdämpfe*. J. Bergson, Berlin, 1847.)

39. M. Velpeau, Paris, 1847. Excision of the tonsils under ether. Death from suffocation, by entrance of blood into the larynx. (*Ueber Aether Rausch*. E. Nathan, Hamburg, 1847.)

40. M. Scoutetten, Metz, France, refers to the case of a man, 50 years old, gradually sinking after an operation, and dying in four hours. (*Récherches sur les Anesthésiques en général*. L. Scoutetten, Metz, 1858.)

41. M. Giralles, Paris, is reported to have said that he had, "not long since" (1861), witnessed a death from the inhalation of sulphuric ether. (*Dublin Medical Press*, June 5th, 1861.)

The following cases are noticed to complete the list of deaths which have been in any way alleged to have any connection with the inhalation of ether.

Dr. A. March, Albany, N. Y., 1854. Operation for an enormous encephaloid tumor of the neck. The patient, a female, aged 18, breathed sulphuric ether for ten minutes, then half a drachm of pure, Paris chloroform, which had previously been used without detriment, and subsequently another half-drachm. In the course of the operation, the sternomastoid muscle was divided, and the common carotid artery and jugular vein, which passed through the tumor, were tied and cut off. Although no great amount of blood was lost, the operation was twice suspended in order to stimulate the patient with brandy. "Notwithstanding every effort was made to save the patient, still, the waning powers of life seemed to vibrate between hope and despair for near two hours, when

she breathed her last without a struggle or even a distortion of the face.”*****“ By some it has been thought that the ether destroyed life, and by others that it was the chloroform. As to the former, I can say that the patient was not in the least rendered insensible by its use.” (*Trans. of the Med. Society of the State of New York*, Albany, 1855.)

M. Legouest reports himself to have been a witness of a sudden death occurring in the practice of M. Valette, of Lyons, in 1858. The patient first inhaled sulphuric ether, and subsequently chloroform was added. (*L'Union Médicale*, March 15th, 1859.)

Dr. R. Crockett, Wytheville, Va., 1857. A boy, 5 years old, was operated on for a fatty tumor of the back, which required two incisions, nine inches long. He breathed a mixture of four parts of sulphuric ether and one of chloroform, and lost from four to six ounces of blood. When the operation was completed he began to vomit, and at the same time his pulse gave way; he died in three or four minutes from the commencement of vomiting. (*Am. Jour. of Med. Sciences*, Vol. 34, p. 284.)

A middle-aged female died from the inhalation of chloric ether in Lynn, Mass., in 1852–53. It was given for the extraction of a tooth, and death occurred before the operation was commenced. Nothing was found at the autopsy to account for the death. (*Committee's Correspondence*.)

Dr. Timothy Haynes, Hooksett, N. H., 1852. Operation for the removal of a tumor of the thigh. Concentrated chloric ether was administered. An unusually large amount, and great length of time, were required before the patient, a young girl, ceased struggling violently, but finally the operation was commenced, and almost at the same time the patient was found to be exceedingly prostrated, with both pulse and respiration failing. The tumor was removed, and the surgeon exerted himself to revive the child, but in vain. She died in from fifteen to twenty minutes. An ounce and a half of chloric ether was used. (*New Hampshire Journal of Medicine*, July, 1852, p. 307; *Boston Med. and Surg. Journal*, Vol. 47, p. 41.)

Dr. W. Ingalls, Chelsea Marine Hospital, 1852. A man, aged 20, breathed chloric ether for the evulsion of a toe-nail. On completing the operation, the patient looked pale, and the pulse was hardly perceptible. Efforts were immediately made to revive him, but were unavailing, and death took place. “From the first application of the sponge to the moment he ceased to breathe could not have been more than, if so much as, five minutes.” Quantity used, two ounces and five drachms. The autopsy revealed nothing to explain the death. (*Boston Med. and Surg. Journal*, Vol. 46, p. 218.)

Dr. Foltz, of East Boston, Mass., 1852. Death during amputation of a finger, the patient being under the influence of a mixture of chloric ether and chloroform. (*Boston Medical and Surgical Journal*, August 18, 1852.)

A druggist's maid-servant was found dead in her bed, a three-gallon jar of *spiritus etheris nitrici* having been broken in her room during the night previous. The room had no chimney, and the door had been kept shut. The reporter of the case, in the *London Medical Gazette*, says that this is the second instance of the kind which has come to his knowledge. (*Edinburgh Med. and Surg. Journal*, Vol. 35, p. 452; *London Medical Gazette*, Vol. 6, p. 87.)

The succeeding references are so indefinite as to possess scarcely any value, but are added simply for the sake of recognition as part of the existing evidence as to the mortality resulting from the use of ether.

“Fatal effects of ether have become multiplied. In our last number one fatal case was noticed, occurring in the Edinburgh Royal Infirmary. We are informed that there are just now two other cases, in which ether was given, dying of secondary purulent deposits, in the same institution.” (*Edinburgh Monthly Journal of Medical Science*, April, 1847.)

The December number of the same Journal says that it is now known that these deaths were “entirely owing to the imperfect apparatus and want of skill employed in the administration of the ether.”

M. A. Trousseau (*Traité de Thérapeutique et de Matière Médicale*, 6me Ed., t. 2, p. 176) states that there have been 19 sudden deaths from ether. He says, in a letter to the Committee, “that it is impossible for him now to indicate the numerous and very authentic sources from which he derived his information, but most of the cases were obtained from French, German, English and American periodical literature.”

Nine deaths from ether, collected towards the end of 1848, by a writer in the *Gazette Médicale de Lyon*, happened 3, 5, 8, 25, 34 hours, and 3, 6 and 15 days after the inhalation. They are considered by him as far from conclusive. (*Révue Médicale*, Mai 31, 1859, p. 609.)

Three cases have been spoken of by correspondents of the Committee, viz., a midwifery case proving fatal after ether, supposed to be, in reality, from concealed hæmorrhage, and two others where many days intervened between the inhalation and the fatal result. The details of neither of them are obtainable.

MM. Levicaire and Long performed version under ether, in two cases of labor. Both mothers cry out, both fœtuses are dead. (*Über Æther Rausch*. E. Nathan, Hamburg, 1847.)

“Suffering from neuralgic pains, Madame Lafarge, liberated after the *affaire Glaudier*, made frequent use of coffee, ether and other liquid substances, the name of which escapes me now,” says the editor of the *Gazette des Tribunaux*. “It appeared that the Sunday before her death the doses were considerably increased. In the evening, some rather grave symptoms appeared, and in the night there seemed little prospect that she would live. At 9¼ on Monday morning she was dead.” (*Mode d'Action des Anesthésiques par inspiration*. E. Robin, Paris, 1842.)

Dr. Mitchell, in his *Chemistry* (Philadelphia, p. 172) states, that at one time “a practice obtained amongst the lads of Philadelphia of inhaling ether by way of sport. In some instances the experiment excited mere playfulness and sprightly movements, but in several cases, delirium, and even phrenitis was induced, which ended fatally.” It is also said that the same accident occurred in Rouen, France, two children having died from playing with ether. (*Mémorial de Rouen*, Feb. 3d, 1847; *Über Æther Rausch*. E. Nathan, Hamburg, 1847.)

SUBSTITUTES FOR COD-LIVER OIL.—Twenty years ago, fish-oils were considered the only possible substitutes. Mr. F. Dubois has since ascertained, by numerous experiments, that in rickets and caries of the bones, vegetable oils, and especially poppy oil, sometimes prove as efficient as cod-liver oil itself.—*Berkshire Medical Journal*.

Army Medical Intelligence.

[From our Special Correspondent.]

MESSRS. EDITORS,—It has been my pleasure to have been stationed in Washington thus far during the campaign, and it has been a source of great delight to me to have been enabled to visit the various hospitals in and about the city. Doubtless many of your readers may have relatives and friends in some of the hospitals, and to them a brief account of my visits from time to time will, I hope, not be without value; and to those engaged in the practice of medicine and surgery, whether or not having friends here, I think a report of cases which I have seen must prove interesting. Many of them are as much so in cause, progress and result, as almost any that are furnished by our best authors.

Every government hospital is under the control of medical men of the highest attainments. But to me no one of these institutions has seemed to be so well governed as the U. S. General Hospital. The good discipline of both its attendants and patients, the neatness and comfort of its various apartments, its system in management, and even its external appearance, both in buildings and grounds, all show that efficient officers have the control. Having seen much of this Hospital, and having been deeply interested in its patients, I propose to commence a series of histories, as concise as possible, of several cases in it which seemed to me the most important.

The first is a case of gun-shot wound of the rectum; a case not so remarkable on account of its treatment, as of the wound itself, its nature, its progress, and, thus far, its result. M. K., a private of the 2d Cavalry, U. S. A., aged 27—strong, muscular and of healthy parents—intemperate, was brought to the Hospital Sept. 20th, 1861, about 2 o'clock, A.M. Upon examination, his extremities were found cold, and bathed in blood, but he was evidently suffering but little pain. He was under the influence of liquor, and received the injury in a drunken melee an hour before. There was a small wound in the lower part of the left buttock, from which no blood came, and which was evidently made by a pistol ball. Another wound, that of exit, resembling an incised wound, much larger than the other, and from which blood and serum gradually oozed, was found on the inner side of the right femoral region. The state of the patient, and the want of light, prevented a minute examination, and cold water dressings were placed on the limb until morning could render a correct diagnosis practicable. Morning came, and on introducing a probe, as also the finger, the ramus of the ischium was found fractured. A catheter was introduced into the urethra, and urine, free from blood, escaped. An injection of soap and water was thrown up the rectum, and a moment after, wind, water and feces came through the wound in the thigh. By this, a wound of the rectum was indicated, and its existence was soon established; for on introducing the finger into the bowel a wound with ragged edges, easily admitting the forefinger, was found about three inches and a half from the anus. The ball must have just escaped the bladder, vesiculæ seminales and prostate gland, all lying in relation to the second portion of the rectum, as none of these organs were apparently injured. Injections were given every third day, and morphia to alleviate the sufferings of the patient, who bore his agony with the fortitude of a true Roman soldier.

Sept. 22d.—The patient was growing weaker and weaker under the pain, and the sphincter ani was cut completely across, with the hope of giving relief to his misery. It proved of little avail. His appetite was failing, nothing passed the bowels by the natural way, and the wound of the thigh was still the exit of fecal matter. Morphia was given in large doses, also brandy, and perfect rest was enjoined.

Oct. 4th.—Less and less matter has escaped through the wound for the past two days, and to-day *two natural passages* greatly relieved him.

Oct. 11th.—Patient is improving rapidly; pulse 90 and strong; appetite good. Passes feces naturally. The wound of entrance entirely healed, and that of exit granulating finely. Patient sits up most of the time.

The final result I will let you know hereafter.

H.

Washington, D. C., Oct. 15th, 1861.

The following extracts are from letters received during the week.

The Surgeon of the 12th Regiment, Dr. J. H. Baxter, writes:—"I should have returned a speedier answer to your letter, received several days since, but have this morning *crawled* from my bed for the first time for five days, and even now am scarcely able to move about from the effects of a severe attack of dysentery, from which I am now convalescing.

"Our regiment are in good health. I have six men in hospital, but only one dangerously sick. He, poor fellow, has typhoid fever, and, I fear, will not live. The others are all able to be up and walk about."

To the Surgeon General.

BALTIMORE, OCT. 16th, 1861.

DEAR SIR,—No event of particular interest has occurred since I last wrote you. In regard to the health of the troops, I have to say that it continues good; occasionally we have a cool night, and then some of them get cold, but no serious result has yet followed from this cause. I will say, however, that the men will soon need more blankets than they now have. To-day, we have sixteen men (patients) in hospital, eight of whom are convalescent from typhoid fever, and they all belong to the battery. We have lost one patient with typhoid fever—he was a puny boy, but 16 years old, and never ought to have been here. I have searched out all the physically disqualified soldiers, and had them discharged from the service, and among them two recruits sent here from Boston last week. The latter had not been examined previous to their being sent here. I do not send any patients to the General Hospital, but treat them all myself. The location of our camp is good, in a sanitary point of view, and I deem it better for the men to keep them out of the crowded hospitals in Baltimore. The men are now supplied with straw (obtained through the Medical Department), and will soon have barracks. Barracks are *now* being built for the horses. It seems to be the impression at the North that there is much sickness here—it would be well to correct that impression.

Respectfully yours,

ISAAC F. GALLOUPE,
Surgeon 17th Mass. Vol.

To the Surgeon General.

{ CAMP BENTON, NEAR POOLESVILLE, MD.

October 15th, 1861.

DEAR SIR,—I received your letter a week since. The health of the regiment is now quite good—have 8 in hospital. Two cases of typhoid fever—have lost one case, perhaps shall lose another now in hospital. Intermittents and remittents are all about done with—no man has had a shake for several days. Our camp is in an unhealthy location, difficult of drainage, but we manage to keep it tolerably clean. We have been here a month, in a state of inaction. When we shall move I cannot tell, of course, but from indications I think before long.

Yours, very respectfully,

J. FRANKLIN DYER,
Surgeon 19th Regiment.

To the Surgeon General.

{ VIRGINIA, NEAR FALLS CHURCH,

Oct. 15th, 1861.

DEAR SIR,—This evening finds the 22d regiment encamped on a fine hill only five miles from Falls Church, with but one regiment in our advance. We are connected with Gen. Porter's Brigade, being near neighbors to the Mass. 18th and 9th, and the Maine 2d. We have not been here long enough to get things in good working order, but soon shall. We arrived here Sunday evening about 8 o'clock, having left Washington about 3½, P.M. We marched ten miles in good order and time. We left six men in hospital at Washington, and brought the disabled men in the ambulances. Some gave way just before our arrival. One, whom we put into the hospital of the Maine 2d, proved to be a case of measles. To-day, the Hospital Steward went back to Washington for the men who were left behind; they are better, and went directly to their respective companies, with one exception. We have now but three in the hospital.

We had a tedious journey on from New York, I can assure you, especially from Baltimore, we being on the road over twelve hours, travelling at the rate of four miles per hour. But the most unfortunate affair took place at the station of the Camden and Amboy R. R., three men being lost overboard and drowned on the

arrival of the steamer; the cause of the catastrophe I was unable satisfactorily to learn. The man who was left at the hospital in New York is rapidly recovering, and will join us soon.

We are all in good spirits, and seem to enjoy it. I can hardly realize that I am so near the enemy, on the "sacred soil" of Old Virginia, but we all may soon find it a stern reality. For one, I am ready to meet the issue, whatever it may be, with all the capabilities I am possessed of, without hesitation or fear.

As soon as we are well arranged, and get into good working order, you will hear from me again.

Your ob't Serv't,

E. L. WARREN.

INGENIOUS MODE OF HEATING TENTS.—We take the following from the *New York Express*. So easy a method as it describes for warming tents, if really effectual, should be at once universally adopted.

"CAMP BRIGHTWOOD, Oct. 15th, 1861.

"The cold has pinched us 'quite smartly,' so that we not only feel the need of warmer blankets and more of them, but a good fire also. The need of protection against sudden cold has set the inventive wits of our Yankee soldiers to work. A plan was soon hit upon. This is the description of it: A hole is dug in the centre of the tent, two feet in depth and diameter. This is walled in with stones laid in soft clay, and covered at the top, with the exception of a small aperture for the introduction of fuel. For this aperture there must be a close-fitting door or cover, which can be opened and closed at pleasure. Across one side of the tent a trench is laid and covered with wood and earth, through which the cold air is conveyed freely to the *bottom* part of this subterranean fireplace. From the *top* of the same, and across the *opposite* side of the tent, another trench is laid, and carefully covered with *stone* and earth, through which the smoke and surplus heat is carried off. This is the whole machine. The merits of it are obvious. It is universally practicable. It can be introduced easily into any tent or dwelling. The economy of it—it costs only a few hours' work for three or four men. The convenience of it—being entirely under ground, it takes up none of the precious room of our small tents. The utility of it—it dries and warms the earth within, and even beyond the entire circuit of the tent, and thus prevents those damp, cold and unhealthy exhalations from the earth which are probably the chief cause of the ill health among soldiers. The tents are thus also furnished with a moist and genial atmosphere, the heat of which can be easily increased so as to meet the exigencies of the coldest part of the season. To realize the importance of this, you must remember that the walls of our houses are only thin canvas—that they are so readily penetrated by cold, or heat or moisture, that the atmosphere within follows rapidly the changes in the condition of the atmosphere without. Indeed, so far as this is concerned, there is but very little difference between living under tents and in the open air. Without some such contrivance, what, therefore, could persons do, who, until within a short time, have been accustomed to live in close and warm houses?

"The effects of this expedient upon this regiment are easily traced. The cases of illness from severe colds and intermittent or bilious fever, which have recently sprung up amongst us, are, I believe, all in the tents not thus protected. It must be also, in part, at least, owing to this arrangement that our encampment (the Rhode Island 2d) continues so healthy, while forms of sickness incidental to these cold snaps are prevailing in encampments near to us."

The following are the principal diseases that occurred at Fortress Monroe during the month of August, the strength of the command being 7,361 men:—Diarrhœa, 718; rheumatism, acute and chronic, 209; constipation, 212; fever continued, 33; fever continued common, 23; fever intermittent quotidian, 66; fever intermittent tertian, 50; fever remittent, 51; fever typhoides, 5; other fevers, 25; rubeola, 1; dyspepsia, 37; colica, 28; cholera morbus, 24; gastritis, 30; tonsillitis, 19; bronchitis, 72; phthisis pulmonalis, 5; pneumonia, 4; pleuritis, 11; cephalalgia, 63; ictus solis, 3; syphilis, primary, 7; syphilis, consecutive, 23; orchitis, 16; gonorrhœa, 47; abscesses, 44; phlegmon, 80; incised, contused and lacerated wounds, 90; gun-shot wounds, 11; contusio, 28; debilitas, 34; ophthalmia, 17; other diseases of the eye, 23.—*Army Correspondence of the New York Medical Times.*

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, OCTOBER 24, 1861.

WE publish this week the report of the Committee appointed in February last, by the Boston Society for Medical Improvement, "to investigate the alleged deaths from the inhalation of sulphuric ether." Since its appointment, the Committee has been busily engaged in the duties assigned to it, and its members have left no means untried by which to reach every source, both in this country and in Europe, where information could be procured, and have embodied the results of their labors in a clear and well-written paper. The conclusions arrived at, we were not unprepared for. In the 41 cases of alleged death from sulphuric ether collected, not one, in the opinion of the Committee, is fairly attributable to this agent, and hence they are certainly warranted in the conclusion, deducible from their investigations, that sulphuric ether is the safest anæsthetic at present known.

With regard to the use of chloroform, the opinion of the Committee is unqualifiedly against it, whether employed alone, or in combination either with alcohol or ether.

Dr. Jackson, however, as will be noticed in his appended statement, differs from the other members of the Committee on this point, and maintains that, for army purposes, the danger of chloroform is so far modified by its admixture in certain proportions with ether, and the risk of the employment of this is so slight, as to be more than counterbalanced by the inconveniences arising from the excessive bulk of the latter. It would seem, on the other hand, however, that unless it be shown that some important modification takes place in the anæsthetic effects of these agents in consequence of the combination, the bulk would be so little diminished in the proportions suggested as to render its advantage in this respect an alleged rather than a real one.

Upon all the conclusions reached by the Committee bearing directly upon the question submitted to them, that of the investigation of the alleged deaths from sulphuric ether, its members were unanimous, and much credit is due them for the able and faithful manner in which they have performed their somewhat arduous task.

DR. L. M. SARGENT, JR., has received an honorable discharge from the post which he has held, of Surgeon to the Second Massachusetts regiment, Col. Gordon. It is no disparagement to his successor to say, that his resignation must be a source of universal regret to the regiment, as he had become deservedly popular for his humanity and skill. We are glad to learn that Dr. S. has not wholly withdrawn from the service, but will return to the field as Captain in the Massachusetts cavalry regiment. The State is happy in retaining such a chivalrous and high-minded gentleman in any capacity.

DEATH OF DR. CHESTER W. RICE.—We record with much regret the death of Dr. Rice, a physician of distinction in the town of Cuyahoga Falls, Ohio. He had labored faithfully for more than thirty years in the practice of his profession, and has left behind him a name which will linger long in the memories of those to whom for so many years he had been a sincere friend and adviser. He died at the age of 58, of an enlargement of the heart, and had been a great sufferer for two years before his death.

FRAU DR. HEIDENREICH, *nee* Von Siebold, died recently at Darmstadt. She was born in 1792, studied the science of midwifery at the Universities of Göttingen and Giessen, and took her Doctor's degree in 1817, not *honoris causa*, by favor of the faculty, but like any other German student, by writing the customary Latin dissertation, as well as defending in public disputation a number of medi-

cal theses. She took up her permanent abode at Darmstadt, where she was universally honored as one of the first living authorities in her special branch of science.

NASAL HÆMORRHAGE.—Dr. Hiard (de Mugron) writes to the *Gazette des Hôpitaux* that he never fails to stop even the most obstinate epistaxis, by a simple process of compression of the nostrils. Being subject in early life to frequent bleeding from the nose, he says he found that the hæmorrhage came from a part of the septum within reach of the ends of the fingers. By compressing the alæ upon the septum, with a moderate pressure upwards as if to force them under the bones of the nose, the bleeding generally stopped within five minutes. The mouth should, of course, be held open during the process, and the breath should not be allowed at once to pass by the nostrils, as soon as the blood ceases to flow. It is best to incline the head forward a little, as in the attitude of writing, resting upon the fingers which compress the nose. On removing the fingers, from six to ten drops of blood escape, which have accumulated before the flow is arrested. Should more escape, the process is to be repeated. For thirty years Dr. Hiard has used this simple method with uniform success. Even the hæmorrhages of typhoid fever, or those occurring in cases of organic disease of the heart, have been uniformly checked without losing a teaspoonful of blood. In one instance, of an individual with hypertrophy of the heart, it was necessary to keep up the pressure for half an hour, as the blood was little else than serum.

IRREGULAR PRACTITIONERS IN THE ARMY.—Among other instances which have recently occurred of improper persons being appointed as surgeons to U. S. volunteer troops, is that of Mr. John J. Craven, of Newark, N. J., to the office of Brigade Surgeon. He is represented as having been engaged in mechanical and mercantile pursuits till about two years since, when he set himself up as a "Doctor," without having attended medical lectures, and without a diploma or a license. He obtained the office of surgeon to one of the three months regiments before the war, and hence his present appointment. The District Medical Society of the county of Essex, N. J., have, through their President, sent a remonstrance against it to the Surgeon General of the U. S. Army, stating facts, which, it is believed, will cause a re-consideration of the appointment.

ILLEGITIMACY IN BAVARIA.—It appears from Hermann's statistics of Bavaria that during the 9 years, from 1835—44, there were born 1,094,795 legitimate, and 288,441 illegitimate children, that is 209 of the latter to every 1,000 of the former; and that in 7 years, from 1851—57, there were 210 illegitimate births to every 1000.—*British American Journal, from the Medical News.*

THE *Richmond Inquirer* of a late date says, a notable change has taken place in the character of the diseases among the confederate soldiers. The prevalent typhoid fever is far less prevalent than formerly, and yields with comparative readiness to careful medical treatment and good nursing. Measles and ordinary fevers are also rapidly abating.—*Med. and Surg. Reporter.*

ORIGIN OF THE WORD QUARANTINE.—During the prevalence of the plague in Europe in the fifteenth century, the sick or suspected were sent to isolated houses or lazarettos. The term of forty days was fixed on as a probationary sojourn in the lazaretto, probably from the doctrine of critical days, which determined the fortieth as the last of all ardent diseases; hence the term quarantine.—*Meryon's History of Medicine.*

THE FIRST USE OF MERCURY IN THE TREATMENT OF SYPHILIS.—In some parts of Spain, where the fluxing of metals was practised, it was observed that workmen who were engaged in the operation, if attacked with the disease, regained their health without taking any medicine at all; and thus it occurred that mercury was, by chance, discovered to be a specific, but for which the disease might have been still unconquerable.—*Ibid.*

At the regular meeting of the Board of Guardians of the Poor of Philadelphia, Dr. S. W. Butler was re-elected Physician of the Insane Department of the Pennsylvania Hospital for the ensuing year.

Dr. J. H. Woodburn, of Indianapolis, has been elected Superintendent of the Indiana Asylum for the Insane.

Dr. Ludlow, the Assistant Physician of Longview (Ohio) Lunatic Asylum, has resigned his office, to accept that of captain of cavalry, U.S.A., and Dr. W. H. McReynolds has been appointed in his place.

At a recent meeting of the Trustees of the University of the Pacific, Dr. L. C. Lane, late of the U. S. Navy, was appointed to the chair of Professorship of Physiology in the Medical Department of that institution, and Dr. Henry Gibbons to that of Materia Medica.

At the recent Annual Meeting of the British Medical Association, Dr. Wm. A. Hammond, Assistant Surgeon, U.S.A., was elected an Honorary corresponding member.

VERMONT MEDICAL BOARD.—The Board of Medical Examiners for this State consists of Samuel W. Thayer, Jr., M.D., Edward E. Phelps, M.D., LL.D., and Selim Newell, M.D. These gentlemen are well known, and fully competent.

HEALTH OF BOSTON.—It will be noticed that the mortality for the past week has been far below the average of the corresponding week for the preceding ten years—indicating unusual health.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 19th, 1861.

DEATHS.

	Males.	Females	Total
Deaths during the week,	28	28	56
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	35.0	34.9	69.9
Average corrected to increased population, . . . . .	..	..	77.9
Deaths of persons above 90,	1	..	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	3	2	4	2	0	1	3	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.941	Highest point of Thermometer,	69.0
Highest point of Barometer,	30.332	Lowest point of Thermometer,	34.0
Lowest point of Barometer,	29.506	General direction of Wind,	W.N.W.
Mean Temperature,	57.4	Am't of Rain (in inches)	1.387

TO CORRESPONDENTS.—The length of the Report on Ether, which appears in our issue of this week, obliges us to postpone the publication of several valuable communications.

COMMUNICATIONS RECEIVED.—Fee Bills ; Where are they ?—Diphtheria.—Review of Prof. Bedford's Treatise on Diseases of Women and Children.—Medical Statistics at Fortress Monroe.—Massachusetts Medical Society and Homœopathy.

PAMPHLETS RECEIVED.—A Catalogue of Officers and Students of Harvard University for the academical year 1861-62. First Term.—Official Map of the State of Virginia, from actual surveys by order of the Executive 1828 and 1859, corrected and revised by J. T. Lloyd to 1861. Colored in Counties, price \$1, and sent by mail. J. T. Lloyd, publisher, 164 Broadway, New York. The Eastern half of this large sheet map is issued separately, the Western half to be published soon.—Agriculture of Massachusetts. Second Series. By Charles L. Flint, Secretary of the Massachusetts Board of Agriculture.—Annual Announcement of the Medical Department of the University of the Pacific, San Francisco.

DIED.—At Quebec, C. E., Joseph Morrin, M.D., a well-known and highly respected physician of that city.—In Indianapolis, Ind., Charles Parry, M.D., 47.

DEATHS IN BOSTON for the week ending Saturday noon, October 19th, 56. Males, 28—Females, 28.—Anæmia, 1—apoplexy, 1—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 3—cancer (of œsophagus), 1—cholera infantum, 3—consumption, 12—convulsions, 1—crup, 2—diabetes mellitus, 1—dropsy of the brain, 3—dysentery, 1—scarlet fever, 4—typhoid fever, 3—disease of the heart, 4—infantile disease, 1—insanity, 1—intemperance, 1—inflammation of the lungs, 2—old age, 1—paralysis, 1—scrofula, 1—sore throat, 1—unknown, 3.

Under 5 years of age, 21—between 5 and 20 years, 2—between 20 and 40 years, 18—between 40 and 60 years, 6—above 60 years, 6. Born in the United States, 43—Ireland, 8—other places, 5.

THE

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THURSDAY, OCTOBER 31, 1861.

No. 13.

A CASE OF POISONING BY STRAMONIUM.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—The infrequency of poisoning by stramonium seed, in this city, renders the following case peculiarly interesting.

L. G., a boy of six years, was found standing at the back gate of his father's house, at about six o'clock on Saturday afternoon. He was known to have gone away from home immediately after dinner, and had not been seen by his family afterwards. He staggered into the house, drank a cup of tea in the kitchen, and was carried up stairs; having said, in reply to a question, "I don't care," but these were all the words spoken by him until after midnight. I saw him a few minutes before nine o'clock. He was sitting in a lady's lap, his right cheek against her breast. The whole surface was of a bright crimson; but the skin was not dry, and the redness disappeared on pressure, returning very rapidly. His teeth and lips were separated. The tongue was very dry, and its tip was curled up, but not touching the roof of his mouth. Both pupils were fully dilated, the iris being scarcely perceptible. The respiration strongly stertorous. The pulse was rapid and feeble. Both sounds of the heart were distinct. The abdomen was tympanitic.

The history, so far as could be made out, was, that he had eaten bread and butter, with tomato catsup, for breakfast; had been at school in the morning; had taken a dinner of bread and butter, with milk, and had gone away to play immediately after. With whom, or where he had been, could not be discovered. His usual companions had not seen him. He had vomited, just before I saw him, a parcel of seeds, supposed to be tomato seeds. On comparison, however, there was an evident difference. The tomato seed was about the same size, but balloon-shaped. These were, as described in the books, "small, kidney-shaped, flattened on the sides," and *white*, not of a dark brown, *as the ripe stramonium seeds are*. Convinced that they were stramonium, I gave him, by the mouth, about a scruple of ipecac, and as much more, in half a pint of warm water, as an enema. Soon after, my friend Dr. Gilchrist, of the U. S. Navy, saw him, and we remained with him until after the arrival of his family physician, Dr. Calvin Ellis.

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When removing him to the bed, I noticed that his limbs, though flexed, were rigid. Soon after, by irritating him, he was made to move, but the power of motion was mostly confined to the right side. Within a couple of hours his left side recovered its power. He did not vomit for two hours after taking the emetic, and then vomiting was much aided by putting the spoon down his throat. The enema came away in part, while vomiting. Before this time, his skin was losing its redness, and he was inclined to get up, but would fall asleep in the act of rising. As in one stupefied with opium, his waking was with a start, as though dreaming. He picked the bed-clothes, as one in the low stage of fever, and if the hand were held before his eyes, he felt for it at varying distances. When pinched or tickled, after ten o'clock, he became very angry, and muttered incoherently, turning upon his face and kicking backward, with alternate movements of the feet. There was no strabismus throughout.

Dr. Ellis, with whom I left him at 11, P.M., reports that he gave him a grain of tartrate of antimony in four doses, in the course of the following hour. After each dose, he vomited, but nothing came up, except these white flat seeds. There was no bile at any time. Before midnight there was a voluntary dejection. He was then moving about, apparently conscious, but he could give no account of himself. About that time Dr. Ellis gave him four grains of calomel, which was at once thrown up. The doctor left soon after, directing senna and salts, in the morning. This dose operated twice in the morning.

On Sunday, at 1, P.M., I saw him again. He was about house, and came to the door. The pupils were still somewhat dilated, and he could not distinguish figures from letters. Otherwise, he seemed well, except that he could not remember the names of all the boys with whom he had been on Saturday afternoon. I called upon several of them, however, and found that they had been playing horse on the Back Bay lands. He had eaten what some of them called hollyhock, and others thistle seeds, for grain. The other boys, so far as I could discover, had eaten none, but one of them took from his pocket a drachm or more of stramonium seed, which he declared to be the same, and which he had offered to his sister, who declined them.

Later in the day, the patient went with his father to the spot, and showed him the nearly ripe stramonium, of which a stalk was picked and brought to my office.

He must have vomited some two hundred and fifty or three hundred seeds. I think more than the latter number.

I was not previously aware that there was stramonium growing in this city, but I saw an abundance of it on vacant lots in the city of Philadelphia, some two years ago.

There are sufficient and good accounts of stramonium poisoning in Wood and Bache, and in Christison.

Boston, October, 1861.

C. E. BUCKINGHAM.

CASE OF CYCLOPIC MALFORMATION.

Read before the Suffolk District Medical Society, September 28th, 1861, and communicated for the Boston Medical and Surgical Journal.]

BY ADINO B. HALL, M.D., BOSTON.

THE following singular case of congenital malformation came under my observation on the sixth of this month.

At six o'clock in the morning, I saw Mrs. M., in her sixth labor. At eight o'clock, the evening previous, her pains commenced, and continued during the night, with more or less intensity. About twenty minutes before seeing the patient, the membranes ruptured, and a very large quantity of liquor amnii escaped, after which the uterine contractions wholly ceased.

Upon examination, I found the left foot presenting; and after waiting some twenty or thirty minutes without any recurrence of the uterine pains, a drachm and a half of ergot, in decoction, was administered. The contractile powers of the uterus soon returned, expelling the lower extremities and body. At this stage, there was no pulsation of the cord. It was with some difficulty that the head was delivered, owing to its large size and the feeble contractions of the womb. The child, a female, was still, much to the gratification of all present, from its peculiar organization.

The following is a brief description of this anomalous birth. The whole contour of the head presented a striking appearance. The forehead was high and prominent, and slightly projecting. The head measured 14 inches in circumference, $9\frac{1}{2}$ inches from the tip of the right ear to that of the left, and 10 inches from the superciliary ridges to the occipital protuberance; thus giving the transverse and antero-posterior diameters nearly the same as the vertical. The head was well covered with hair, and the cranial bones so fully developed that there were no open spaces, or fontanelles, of any account.

The nose was entirely wanting, there being no nasal bones or fibro-cartilages. From the mouth upward, the space was covered with normal skin and integument, with no rough, bony or cartilaginous points felt beneath. In the centre, between the orbital spaces, where the base of the nose should commence, was an elliptical opening, about the size and shape of the open eye of an adult. At the two angles of this optical space, the upper and lower lids had become well organized, for more than a third of an inch, along the elliptical lines, and were covered with the usual triple row of hairs. These were short and soft, giving an appearance quite normal, as *eyelashes*. The remaining portions of skin along these lines presented everted edges, evidently showing an attempt to form regular lids for the whole contour of the ellipsis.

At the base of this open space, adipose and muscular tissue were observed. Upon the right and left, were the usual orbital depressions. These were covered with smooth dermoid integu-

ment, but were not so deep as they would appear in a child whose globes had been extirpated, nor were the outlines of the socket so prominent. From each canthus of the central opening, were two short linear indentations, extending outwardly in a transverse direction, across the orbital spaces.

The superciliary ridges were not very much elevated, still they were well marked; neither were they covered with the usual normal growth of hair.

The absence of both eyes and their appendages gave a most unique appearance; and it seemed as if Nature had forgotten the formation of the orbits and their contents, and to have extended over the spaces the skin and its integuments. Three fourths of an inch above the cyclopic eye, just over the nasal tuberosity, was an outgrowth, an inch and a quarter in length, and five eighths of an inch in diameter, each way, at the base; while at the apex it was somewhat less, and had a flattened appearance. At the end of this appendage was a small indenture, about the size of a pea. At the base its structure was in part cartilaginous, while the remaining portion was of integument peculiar to the dermis and cellular tissue. The whole resembled somewhat the index finger, devoid of the nail and the second and third phalanx.

The child, in other respects, was well developed externally. It weighed six and three fourths pounds. No examination was made of the internal organs.

The movements of the fœtus *in utero* had been vigorous during the night, and up to the time I saw the patient. On making gentle traction on the presenting foot, motion was felt three or four times; and the mother, although assured to the contrary, believed the birth would be a living one.

I would say, in addition, as a historical point, that the mother is thirty-eight years old, and has always possessed good health. She has had five previous labors within the last eight years, giving birth to three living boys and two girls. One labor was instrumental. During the last six months, she has experienced much anxiety and depression of mind, from family connections, &c. She also states that, on the second of February, when about two months pregnant, she saw two boys in the street, exercising their pugilistic powers. One of the combatants had a bloody face, and some blood was observed on the sidewalk. She separated the parties, and accompanied one of them to his home, where she saw another boy, sick in bed, with a bandage around his head. Otherwise, there has been nothing remarkable during her period of gestation.

A PRACTICAL ESSAY ON ANEURISM.

[Continued from page 218.]

OTHER PARTICULARS IN THE NATURAL HISTORY OF ANEURISMS.

THERE are other points in the natural history of aneurism which it would be very interesting to examine, but upon which we have not as yet sufficient data to pronounce with certainty, and with that precision of detail which we would like to use in all statements of facts in medical subjects. These concern the comparative liability of the sexes, of the various periods of life, and of different occupations and nationalities, to aneurism, and also the comparative frequency with which different arteries are affected by the disease. There are no tables as yet that we can lay our hands upon of sufficient extent to illustrate these points properly. To construct them from the mass of periodical literature around us would be a task of great labor, requiring more time than we could devote to it, and still more, when done, they would be liable to the objection that only special and important cases are so recorded, whilst for a proper exemplification of the subject *all* should be introduced into our calculation. We will do, however, what we can.

It is generally conceded that aneurism is more frequent in males than in females, and this is generally attributed to the greater laboriousness and more violent exertions of the former sex.

Hunter said he had never met with but one case of true aneurism in a woman. Hodgson, in 63 cases of aneurism of the aorta, found 56 in men, and only 7 in women—8 to 1. Lisfranc, out of 154 cases operated upon, had 141 in men and 13 in women—11 to 1.

There is some difference, though we cannot estimate it exactly, in the relative frequency of aneurism in different countries. The French surgeons remark the more frequent opportunities for studying the disease that exist in England.

Records of the comparative frequency with which different arteries are affected are very meagre and insufficient, though several authors give tables to illustrate this point. As we have said, they are too much confined to notable cases. Lisfranc gives one of 179 cases as follows:

Popliteal,	-	-	-	-	59	Anterior tibial,	-	-	-	-	3	
Femoral,	{	at groin,	-	-	-	26	Gluteal,	-	-	-	-	2
		other points,	-	-	-	18	Internal iliac,	-	-	-	-	2
Carotid,	-	-	-	-	-	17	Temporal,	-	-	-	-	2
Subclavian,	-	-	-	-	-	16	Ulnar,	-	-	-	-	1
Axillary,	-	-	-	-	-	14	Internal carotid,	-	-	-	-	1
External iliac,	-	-	-	-	-	5	Peroneal,	-	-	-	-	1
Innominata,	-	-	-	-	-	4	Radial,	-	-	-	-	1
Humeral	-	-	-	-	-	3	Palmar,	-	-	-	-	1
Common iliac,	-	-	-	-	-	3						

—enumerating 18 different varieties.

Mr. Crisp* gives a table from all the cases of aneurism recorded in the British journals from 1785 to 1847—551 in number. Its exhibit is as follows :

Thoracic aorta, - - - -	175	Innominate, - - - -	20
Pulmonary, - - - -	2	Carotid, - - - -	25
Abdom. aorta and branches, - - - -	59	Cerebral, - - - -	7
Common iliac, - - - -	2	Temporal, - - - -	1
External iliac, - - - -	9	Ophthalmic, - - - -	1
Gluteal, - - - -	2	Subclavian, - - - -	23
Femoral, - - - -	66	Axillary, - - - -	18
Popliteal, - - - -	137	Subscapular, - - - -	1
Posterior Tibial, - - - -	2	Brachial, - - - -	1

—eighteen arteries being affected, the same number that Lisfranc enumerates; but Mr. Crisp gives the aorta, abdominal and thoracic, as well as pulmonary, posterior tibial, cerebral, ophthalmic and subscapular, which Lisfranc does not name. In addition to the above, we find a case of aneurism of the umbilical cord. The child was born dead. On the cord was a tumor, the size of a hen's egg, about two inches from the placental end. This, upon dissection, seemed, from its construction, to be fully entitled to the name of true aneurism.†

The comparative liability of different ages we cannot better illustrate than by another table of the same author, taken from 101 cases :—

13 years, 1	25 to 30 years, 12	40 to 45 years, 20	55 to 60 years, 6
15 to 20 years, 3	30 to 35 " 24	45 to 50 " 17	60 to 70 " 3
20 to 25 " 5	35 to 40 " 15	50 to 55 " 11	70 to 80 " 3

From this it will be seen that the disease most frequently affects persons between the ages of 30 and 50, and that before the age of 20 and after that of 60 it is rare. How much this difference may be due to the habits of those particular periods of life, and how much to the actual condition of the tissues involved, we cannot positively say; but it is very evident that the muscular energy and violent activity of mid-age cannot but play an important part in the matter.

TREATMENT OF ANEURISM.

History.—The first mention of the treatment of aneurism, in the records of our profession, is made by Aetius, who quotes Rufus the Ephesian, thus taking us back to the first century. The passage in which he details the treatment is worth quoting, because it contains hints of two hæmostatic means—one of which, torsion, has generally been deemed of more recent date. “Si vas unde emanat sanguis profundum fuerit—ubi situm ejus et magnitudinem diligenter perspexeris, noverisque num quid vena sit an arteria, vas immissa volsella extendemus et moderate circumflectimus. Ac

* A Treatise on the Structure, Diseases and Injuries of the Bloodvessels. By Edward S. Crisp, M.R.C.S. 8vo. Pp. 350. London. 1847.

† Dr. McDougall, in the London Lancet, February 10th, 1844.

ubi ne sic quidam cessaveirit, vinculo constringemus; nonnunquam et post vinculi nexum oblique vas incidere cogimur.*

Galen, two thirds of a century later, speaks of torsion in the same manner precisely, only changing the words; from which we may presume he took the idea from Rufus or some earlier writer. At all events, it is evident it is not original with Galen, who has had with several writers the credit of it; still less can Amussat, or his contestants for the honor, Velpeau and Thierry, claim it, though to the first its revival in later times is clearly due. We find it mentioned also by Avicenna and other writers more recent, but still much anterior to the modern claimants.

Aetius also suggests that, having put two ligatures on the artery above the tumor, the latter be opened and emptied, and another ligature be applied below it. The next writer of note upon this subject is Paulus Eginetus, and in the six centuries that elapsed between him and Aetius we find but a slight change in the treatment, scarce any improvement. Paulus makes a distinction between the treatment of true and false aneurism. In the first he lays bare the tumor, passes a ligature above and below it, and before tying them opens the sac freely. The ligatures are then tied, and suppuration of the sac promoted by the introduction of stimulating drugs. In the false aneurism the tumor is surrounded from the outside by a ligature, or if large, a needle armed with a double thread is carried through the sac as near the mouth as possible, the thread is then divided and each half tied separately around its corresponding half of the tumor. His object seems to have been to still retain the permeability of the artery, but to separate from it the sac.†

Avicenna‡ makes the special charge that the ligature should be put between the aneurism and the heart, and should there still be bleeding it must be from anastomosis. This was also previously hinted by Galen. The Arabian also suggests plugging the artery as a hæmostatic means.

Compression is spoken of by Guy de Chauliac, and was used afterwards by Ambrose Paré, but so unsatisfactorily that the latter advises resort to ligature. In doing this, in our opinion, Paré is the first to suggest the operation which has since been called Anel's—the operation by a single ligature between the aneurism and the heart. His words are “Partant, je conseille au jeune chirurgien qu'il se garde d'ouvrir les aneurismes, si elles ne sont fort petites et en parties non dangereuses, coupant le cuir audessus, le séparant de l'artere; puis on passera une esquille à sétou, enfilée d'un fort fil par sous l'artere aux deux costés de la plaie, laissant tomber le filet de soy-mesme et ce faisant, nature engendre chair, qui sera cause de boucher l'artere.”§ Guillemeau, who was

* Aetius, Lib. xiv., Cap. 52.

† Lib. vi., Cap. 37.

‡ Lib. iv., Sen. 4, Tract. 2, Cap. 17.

§ A. Paré, Lib. vii., ch. 34, De l'Aneurisme.

a pupil, we believe, of Parè, gives much the same advice:—"Pour la guerison, dit-il, la seule ligature du corps de l'artere y est profitable." He then gives, in detail, a case upon which he operated, using only one ligature, and adds:—"Si en quelque autre partie exterieure il se presente au chirurgien un pareil aneurisme, il peut surement decouvrir le corps de l'artere vers sa racine et partie superieure et la lier de meme façon, *sans autre ceremonie*."* We quote the original language, in order that there may be no suspicion that we have made an error or misconceived the statement. It is very direct and positive, and is put in a manner as if he were not suggesting anything new, but what had already been known, and what he had gotten from another—not original with himself.

We should mention that these surgeons, and indeed all of their day, depended much upon dietetics and regimen to quiet the system in treating aneurism, and also upon local applications of a soothing and emollient character.

We cannot but note, too, how near they seemed to come to a clear understanding of the physiology of the circulation, as we have already noticed in rehearsing the opinions of old writers upon the nature of aneurism. It is curious, too, to see the unnecessary precautions they took to bring about a favorable result, both during and after the operation, and how much this last was complicated by some of them. Thus, we find much importance attached to fomenting the limb in red wine, to washing out the sac with spirit of wine in which *Ægyptiacum* was dissolved, to sprinkling the wound full of *Styriac balsam*, &c.

Cauterization was first tried by Severinus, but this, however, was under peculiar circumstances, which he details at length. It seemed to be used more to remove the gangrened substance of an aneurismal tumor than as a hæmostatic means, and in other cases he resorted to the ligature.†

Compression, originally suggested by Paulus Eginetus, and used, as we have mentioned, by Parè without success, was revived in the seventeenth century by Dionis, who also suggests the placing of a roll of lint between the ligature and the artery—a practice since urged by Scarpa, who got the credit for it, and whose name the method bears. Dionis also mentions piercing the artery with the thread before tying the ligature, a resort since used by Sir Astley Cooper, and, we believe, claimed by him as an original suggestion. He advises, too, putting a button of vitriol into the artery, or a plug.‡

Between this and Anel's time, at the beginning of the eighteenth century, we have no improvement to note in the treatment of aneurism. Anel abided in a single ligature, and if he did not first suggest this by using and showing its efficacy to others, he was

* Guillemeau, *Les Œuvres de Chirurgie*. Paris, 1612. Pp. 699.

† Marci Aurelii Severini de *Recondita abscessuum Natura*. 4to. 1643.

‡ P. Dionis. *Cours d'Operations de Chirurgie*. 8vo. Paris. 1716. A quaint book.

very instrumental in doing away with the use of two ligatures, and the barbarous plan of, in every instance, opening the sac and filling it with various drugs to promote suppuration. The full reputation of the single ligature, and the entire discarding of the two ligatures, was not wholly established until fifty years later, when Hunter and Desault, who are rival claimants for the honor, demonstrated clearly and beyond doubt the uselessness and absurdity and hurtfulness of the more complicated operation, including opening the sac, and the far greater superiority of the single and simple incision, and of letting the tumor alone to be absorbed. Strange it is that Parè's clear judgment and practical sense had not been better appreciated, and that two hundred years should have been so utterly lost.

Early in the 18th century Valsalva suggested his treatment of aneurism by general blood-letting, regimen and diet, improving upon the system of his predecessors in these particulars. We have only his plan given us through the words of another, his friend Albertini.

Refrigerants, suggested first by Bartholin* two hundred years before, were greatly used during this century; and to this period belongs also the suggestion by Lambert† of sewing up the mouth of the artery, and of Brasdor‡ that the ligature should be put on the side of the aneurism most distant from the heart, and that compression should be used upon the artery itself, either above or below the tumor, and not upon the latter as had generally been done.

This brings us down to this century, since the beginning of which, in common with other surgical subjects, great attention has been paid to aneurisms, and the devices for the cure of the affection have multiplied in proportion.

We cannot take up these chronologically, much less enumerate in order the names of each one who has contested in this large field of originality in the methods devised. Many of them show great ingenuity, and seem at first to offer peculiar advantages. Numbers after a fair trial have been rejected; though the pages of our journals every now and then exhibit a revival of some one of them with an urgency of its claims as great as if the experiment had never failed. We may, then, for fear of a charge that we have overlooked and slighted the excellence of some of these, give a few pages to enumerating them and showing their defects. Having thus disposed of what we consider worthless, we shall have a clear stage on which to display and discuss what we consider the legitimate and available means that surgery offers us for the cure of aneurism.

[To be continued.]

* *Anatom. Aneurysmatis dissecti hist. accedit Johannis van Horn ejusdem argum. Epist.* 12mo., 1644.

† Extract of a Letter to Dr. Hunter, giving an account of a new method of treating aneurism. *Medical Observations and Inquiries*, London, 1761, vol. ii.

‡ In a paper by Deschamps, from *Recueil period. de la Soc. de. Med. de Paris*, tom. v., 1799.

OPERATION FOR VESICO-VAGINAL FISTULA.

PERFORMED BY BENJ. F. McCLURE, OF DUBUQUE, ASST. SURG. IOWA VOL.

[Communicated for the Boston Medical and Surgical Journal.]

THE patient, a young married lady of 20, was confined with her first child in October last. The labor was protracted in consequence of the unyielding state of the parts and the size of the head. The practitioner in attendance called in counsel, and the forceps were applied while the head was still high in the pelvis, the patient being put under chloroform. The patient stated that, soon after coming to herself, she felt very sore, and the urine dribbled away; and on placing her finger within the vagina, she found the arch of the pubis entirely denuded of covering, and the bone laid bare.

On her recovery, she was unable to retain her urine at all. She finally applied to Dr. McClure for help. On examination, he found the urethra cut completely across, about three fourths of an inch from the meatus, and the parts separated about half an inch from each other. The pubic arch had the appearance of having been abraded, as she stated.

After securing a healthy condition of the parts, which were much excoriated by the constant flow of urine, and accustoming the urethra to the catheter, he determined to perform the operation, which he did in January, assisted by Drs. Finley, Watson and myself.

The patient was placed on a table, in the usual position, ether-chloroform being given. The speculum was introduced, and the condition of the parts above described was at once evident. The catheter being introduced, the edges of the fistula were pared off. This was found rather difficult, from the necessity of cutting at right angles to the axis of the vagina, and also from having to cut so close to the pubic arch. Having done this, the needle, armed with a fine silver wire, was pushed through the two lips, and the wire left. Upon this wire a small plate of lead had been slipped, having a slit in the opposite edge to receive the distal end of the suture as it was drawn back and twisted over the lead. Three sutures were used. The centre one was inserted without difficulty, but the other two with great difficulty, from their nearness to the arch. This was accomplished, however, and the sutures drawn up, twisted, and the ends cut off. The catheter was left in the bladder, and the patient put to bed. The suffering was very slight, and except from the distension of the external parts, was not at all complained of. She described the effects of the cutting as giving a slight *burning* sensation. Slight fever followed, which was readily relieved, and there were no untoward symptoms.

About the tenth day, if my recollection serves me aright—my notes being lost—the sutures were removed, when it was found that the adhesion of the parts was perfect for two thirds the

circumference, but that the sutures at one side had cut through, and there was still a slight fistula. The catheter was removed, and she was able, after two weeks, to retain her water for a couple of hours, and to sit up and walk about the room without any dribbling, while she could not even lie down before without it.

A second attempt was made on the fistula a few weeks later, but without success, from the opening being so close to the pubic arch. The effect of the attempt was, however, beneficial, as it caused the parts to close up so much, that, by the opening of summer, she was able to walk about the streets for several hours without trouble. Some difficulty still seemed to arise from paralysis of the sphincter, as the flow, when it occurred, was through the meatus, and not from the fistula. In July the lips of the fistula seemed to be so much thickened as to practically close it, and she went east to visit friends, hardly more incommoded than other ladies.

The speculum used was devised by Dr. McClure for the occasion, and differed somewhat from others as figured in Braithwaite's Retrospect. It operated perfectly in throwing the light down upon the fistula. It was made of zinc, coated with mercury to form a reflecting surface. Its cost was thus but a trifle. It was suggested that in performing a similar operation it would be better to have the knife made with a straight shank, about two inches long, with the cutting part bent at right angles to this, about one half an inch long, with its cutting edge convex. It could then be made to cut with less trouble. The lead should be slipped on the hither end of the wire, before the insertion, to save time, with the slit so that the distal end can be easily drawn into it.

Dyersville, Iowa, Oct., 1861.

I. H. N.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

SEPT. 9th. *Two distinct portions of the Colon united by a Cancerous Growth, which involved both, and through which the two portions of Intestine communicated.*—Dr. ELLIS showed the specimen, which was sent by Dr. COTTING. It was taken from a man 67 years of age, who was attacked, about a year before his death, with pain in the abdomen. The symptom did not then attract much attention, and he merely took a dose of oil. In two or three days, however, he became feverish, and there was evidence of the existence of enteritis. When seen by Dr. Cotting, there was pain, tenderness, and tumefaction, which lasted a number of days, when it was thought that a firm mass could be detected in the left iliac region. The pain continued, with nausea, vomiting and emaciation, but he afterwards improved so much that he was able to attend the Legislature, of which he was a member. The mass afterwards did not appear so prominent, but there was tenderness at

that point. About ten days before his death he had a chill, and on the following day another, more severe. On the third day, he was seen by Dr. Cotting, who found him in bed, haggard, retching, and with a feeble pulse of 120. These symptoms persisted until his death.

At the examination, the arch of the colon was found parallel with the descending colon, and firmly adherent to the sigmoid flexure. The connecting substance was composed of a soft, whitish, encephaloid-looking material, which occupied upwards of two inches of each portion of the intestine, and projected into the cavity half an inch or more above the surface, which was of a brownish or dirty-white color. A free communication had been established between the adjacent portions of intestine. Examined with the microscope, the growth proved to be composed of rounded or elongated granular cells, with nuclei and nucleoli, smaller than those usually found in cancer, but relatively large, when compared with the cells.

In the liver were three small whitish growths, the largest perhaps an inch in diameter. They contained a large amount of fat, resulting from their degeneration. The heart was much softer than usual, being broken down by the fingers with much ease.

The other organs presented no appearance worthy of note.

Oct. 14th. *Puerperal Convulsions treated by Inhalation of Ether.*—Dr. AYER reported the following cases.

CASE I.—Mrs. D., aged 25 years, of slender make, nervo-bilious temperament, gave birth five years ago, out of town, by instrumental delivery, to a stillborn child. During the labor, I was informed by the physician, she had several severe convulsions, and continued five days after delivery in an unconscious state. Afterwards, she had several abortions without any unfavorable symptoms. Her health had generally been good after her first accouchement.

She passed the period of her last pregnancy with comfort, and nothing unfavorable had occurred. I was called to her August 28th, at 9 o'clock in the evening. She was expecting confinement in two weeks. The patient was in bed, and in a state of nervous excitement, and said the waters had been escaping from her during the evening. She had been exercising moderately through the day. There was no pain, and had been none. No muscular contraction of the abdomen. I made no examination, but enjoined perfect rest, and returned home. At 11 o'clock, two hours after, I was called again to her. She complained of constant pain in the right side and epigastrium. No contraction of the uterus was perceived or complained of. Sinapisms to the painful parts, and opiates, were resorted to. But the pains continued to increase, and gradually took on an intermitting character. On examination per vaginam, the os was found entirely obliterated and slightly dilated, and a slight uterine contraction was found to be synchronous with the pain of the side. The inhalation of ether was then employed, with soothing effect, and increased the force of the uterine action. The foetal presentation was natural—occiput to pubis—and the labor was proceeding favorably and rapidly. As the head began to press upon the brim of the pelvis, a violent convulsion seized the patient—the mouth turned aside, the features were distorted, and the entire body was violently agitated. Ether was administered during the fit. The pains continued to increase, and the labor progressed rapidly. The patient was watched closely, and at the slightest appearance of spasmodic action the ether was applied. By this precaution,

convulsions, apparently, were repeatedly prevented. The patient continued unconscious after the first convulsion. Two and a half hours after the first fit, delivery of a living child was effected. There were four severe convulsions before the birth of the child, and one between the birth and delivery of the placenta. Every convulsion was coincident with a pain.

After delivery, the mother continued comatose. There was no ster-tor. During the first twenty-four hours after delivery she had repeated convulsions. The next day the shocks were less frequent and less severe. On the third day, there were only two convulsions. Neither nourishment nor drinks could be taken. The pulse was moderate, but became more and more feeble. The temperature of the body grew less, and the patient died, sixty hours after delivery. The urine was not examined.

CASE II.—Mrs. L., of full habit, nervo-bilious temperament, had been delivered, two years before, of a large, stillborn infant. Its death was ascribed to fright caused by a large fire in the neighborhood. I was called to her on the evening of Sept. 17th, in her second labor. The period of pregnancy had passed favorably. The os uteri was dilating moderately, and the contractile efforts were regular and efficient. About midnight, the liquor amnii was discharged in great quantity; the presentation of foetal head was natural—occiput to the pubis. At 1 o'clock in the morning, the head began to press firmly on the superior brim of the pelvis. I was suddenly called to the bedside. The patient said, “I feel strange—as though something was about to happen to me.” Almost instantly she was seized with a violent convulsion, and became unconscious. The pains subsided. As it was late at night, and no remedy at hand, I despatched a messenger for ether, and gave the patient salt and water, accompanied by friction to the extremities. There were four or five convulsions before the ether arrived. She was soon put under its influence, and the spasmodic action was immediately allayed. The pains were wanting, and my instruments were procured. The head was reached by the long forceps, and delivery safely and rapidly effected. The child weighed ten pounds, and lived. There were no convulsions after ether was used. Mother and child did well. In the intervals of convulsions, consciousness returned. The urine was not examined.

Oct. 14th. *Disease of the Heart and Kidneys.*—Dr. COALE reported the case, and showed the specimens.

The patient, Mrs. G., aged 66, had enjoyed fair health. Had typhoid fever in 1836, and a severe cold in February, 1861. Had had six or seven children. Active in her habits and cheerful in her disposition. Dr. C. was sent for to see her on the 20th of June. She was suffering from a short, dry, very sonorous and troublesome cough. The pulse was natural, and a simple prescription was ordered, which seemed to cure the cough. Dr. C.'s attention was then called to her husband, whom he found very seriously affected with albuminuria and its accompaniments; this required his constant attendance at short intervals, and gave him an opportunity of following Mrs. G.'s symptoms that otherwise he might not have had. In general she was active, nursing her husband, and looking after her household affairs, for the month after he first saw her. She then had another attack of cough, and a thorough examination of her chest was made. No pulmonary signs were detected, but there seemed to be a very slight,

almost imperceptible, burr or roughness at the first sound of the heart. The second sound was normal. Two weeks afterwards, palpitation and dyspnœa had become troublesome, and the legs were much swollen. The roughness of the first sound had now become very decided, but no other abnormal sound, from either heart or lungs, was detected. The stomach and bowels seemed to do their duty, though the latter were a little sluggish, and the appetite was not as good as it had been. The urine was examined, and both nitric acid and heat threw down a good deal of albumen. Tincture of squills was given as a diuretic, and acted admirably, increasing greatly the secretion of urine, which had been decidedly scant, and lessening in a marked manner the œdema of the legs. The fluid extract of *veratrum viride* was given, in doses of eight drops, and always, when administered in time, controlled the action of the heart, reducing it from 100 beats in the minute to 72, and consequently lessened the dyspnœa. From this time no material change took place in the character of the symptoms, but decidedly one in the intensity, which became much increased. The first sound of the heart became sonorous, making a diminutive squeak, as it were of a very small pig. With the second sound, during the last week of her life, there was the suspicion of a roughness, but not always. The attacks of dyspnœa became more frequent and violent, and were sometimes accompanied by the sensation of a desire to vomit—not of nausea, but as if vomiting would relieve the oppression; and of late some mucus would be ejected at these spells. Death occurred Oct. 13th, during one of these paroxysms. During life, both Dr. Shattuck and Dr. James Jackson had seen her in consultation, the former early in the disease, the latter two days before her death.

On examination after death, the heart was found greatly enlarged, but otherwise healthy, except that the aortic valves were roughened very much, and almost stiffened by osseous deposit, which also extended up the aorta. The right kidney seemed very slightly granular, but not enough so to suggest by itself the existence of albuminuria. The left was more natural. The other organs were healthy.

Army Medical Intelligence.

MEDICAL STATISTICS AT FORTRESS MONROE, VA. *Messrs. Editors,*—The medical reports of this department, for the month of September, 1861, show a decrease in the number of cases of disease in general, but an increase in fevers of malarial origin. These are not, however, of malignant typhus, but amenable to treatment, though the convalescence of some of the cases is rather protracted. The general health of the troops is excellent. The regular and efficient inspections of all the camps and hospitals by the Medical Director, and the suggestions and requirements he has made, have gone far towards the accomplishment of the present desirable state of affairs. It is recommended that all regiments coming to the war should bring flooring for their tents with them. This precaution of flooring is very conducive to the health of the troops, and lumber, &c., cannot always be readily obtained at the seat of war, so that delays occur, by which the troops are sometimes without this comfort for some time after going into camp.

The condensed report for September (two regiments and two companies at Hatteras Inlet were too late in sending in their reports, and are not included*) shows the following data:—

Strength of command, officers and enlisted men (* see above) 6,532 ; remaining sick and convalescent on last report, 430 ; taken sick during the month of September, 1861, 2,045 ; sent to the U. S. General Hospital, Fortress Monroe, 27 ; on furlough, 6 ; deserted, 1 ; discharged on surgeon's certificate, 8 ; died, 7 ; remaining sick, 162 ; remaining convalescent, 258.

Total remaining on report, 420 ; returned to duty, 2,006.

The deaths were :—Private Edw. J. Collier, Mass. Bat., meningitis ; corporal Wm. H. Annabel, Union Coast Guard, fever, remittent ; priv. Charles Hablitz, 1st N. Y. Vols., traumatic tetanus ; priv. Martin S. Tinkham, Mass. battalion, fever, typhoid ; priv. Julius Cohnheim, 20th N. Y. Vols., fever, typhoid ; priv. Andrew J. Sproul, 16th Mass. Vols., gun-shot wound (vulnus sclopetecum) ; priv. Wm. McDonald, Union Coast Guard, drowned. Total, 7.

Classes of Disease.—Fever, 434 ; diseases of organs connected with the digestive system, 709 ; of the respiratory system, 210 ; of the brain and nervous system, 123 ; of the urinary and genital organs, and venereal affections, 35 ; of fibrous and muscular structures, 135 ; abscesses and ulcers, 103 ; wounds and injuries, 114 ; diseases of the eye, 19.

Leading Diseases.—Diarrhœa, 384 ; constipation, 114 ; rheumatism, acute and chronic, 119. Fevers—congestive, 44 ; common continued, 11 ; intermittent quotidian, 120 ; intermittent tertian, 9 ; remittent, 195 ; typhoides, 5 ; other diseases of the class of fevers, 50. Dyspepsia, 29. Colica, 41. Cholera morbus, 10. Gastritis, 4. Tonsillitis, 17. Bronchitis, 84. Phthisis pulmonalis, 8. Pneumonia, 1. Pleurisy, 4. Catarrhus, 94. Cephalalgia, 98. Ictus solio, 1. Syphilis, primitive, 3 ; syphilis, consecutive, 9. Orchitis, 11. Gonorrhœa, 8. Abscessus, 15. Phlegmon, 46. Incised, contused and lacerated wounds, 36 ; gun-shot wounds, 9 ; contusio, 32. Debilitus, 18. Ophthalmia, 17 ; other diseases of the eye, 2.

On the 7th of October, there arrived here a number of released wounded prisoners of our army from Richmond ; twenty-eight were pronounced too feeble or otherwise unfitted to proceed. They were at once placed in the General Hospital here, and their wounds and general condition are fast improving. They declare that, in view of the large amount of duties of the confederate surgeons, who had so many of their own sick to care for, and in view of their scanty surgical supplies and appliances, they consider that that they were kindly treated, and as efficiently cared for as the circumstances permitted. The treatment of the well and hearty prisoners they say was often brutal, but that of the sick and wounded rarely if ever so.

The amputations, as shown by the stumps, were skilfully performed. Their general condition on arriving here was cachectic, as also many of their wounds unhealthy. The salubrious climate of old Point Comfort, with the superior nursing, food, attendance, &c., is effecting for them fast progress to health.

CHARLES B. WHITE,

Fortress Monroe, Va., Oct. 18, 1861.

Assis't Surg. U. S. Army.

WE are permitted to make the following extract from a letter from the Surgeon of the 14th Regiment, dated Fort Albany, Oct. 19th.

To the Surgeon General.

FORT ALBANY, VA., OCT. 19th, 1861.

SIR,—Since writing to you last, our Regiment has been moving on in the even tenor of its way, with very little to break the quiet of camp life. Intermittent has been almost our only disease, and that has continued very light. Lately we have had a larger proportion of decided ague, and of these cases the greater part were of the tertian variety; but the “shaking ague,” to use the boys’ term, proves less disagreeable to bear, and more tractable to treat, than the “dumb ague,” or irregular fever without any distinct chill. Lately, too, we find more tendency to bilious derangement, and often a blue pill or two prepares the way very finely for the quinine. The aggregate of our cases, of all grades of severity, is quite large—some hundreds—but the larger part of them might be more appropriately classed perhaps as “cases showing symptoms of intermittent,” while we have had four or five only manifesting typhoid symptoms. I think much benefit has resulted from an early attention to the cases, and also from continuing the quinine for some time after the attack, and in cases where the recovery has been not quite perfect, to the present time.

We have not felt authorized in using quinine to any great extent as a prophylactic, but in addition to the morning prescribing at surgeons’ call, I have usually visited the tents daily and inquired out those feeling the preliminary headache, backache or lassitude, and had them take quinine. The men soon come to understand this, and now a few minutes of headache brings them for their “bitters.” In this way many cases, I think, have been wholly prevented, or very much lightened, as I am quite sure I can say from experience as well as observation. To-day we have nineteen in the hospital, most of them being from the companies at the forts on the low land, while three of the seven companies here on the high ground have none.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 31, 1861.

THE importance of the freest publication of medical cases can be hardly over-estimated. And yet, judging from the general reticence of the profession, one would suppose it to be almost the last thing in their estimation. When, in conversation with a brother physician the other day, we appealed to him for a communication to enlighten our pages, he shook his head in negative response, and we replied “give us some cases”—“Oh, I have got cases enough,” was his answer, with something like contempt in his manner, as if cases were hardly worth notice. Now these are just what we want—well-observed, well-digested, well-treated (if possible), well-reported cases—at any rate, *cases*. They give a life to a weekly journal like ours, which nothing else can give. Our friend, just alluded to, has been a frequent contributor of just such cases as we like, and we hereby acknowledge our indebtedness. But taking the profession all through, we hope we

may be allowed to say, our brethren are altogether too indifferent about hiding their light under a bushel. They suffer the results, and, in the aggregate, the *vast* results of their daily experience, to benefit merely those who are the subjects of their individual treatment, when they might become the means of great good to thousands. Such reports of cases are a great help to the reporter as well as the reader. They are "twice blessed"; they bless "him that gives and him that takes." Nothing can be better for the training of a mind in medical observation and judgment, than the method required for a careful and thorough report of a well-observed case. The habit that it leads to would be of inestimable advantage to every man who values the culture of his own mind; and who can say how much it may accomplish in doing away with the mass of crude error and ignorance which still encumbers the golden truth of medical science? Then, too, we want discussion on these cases. How often have we heard criticisms on such reports, which have never reached other ears but those of the listener, which, if published, would have given a greatly added value to the original report. Gentlemen are altogether too tender of their professional brethren. There is a great reluctance to criticize each other in print. But when such a discussion is conducted in a fair and gentlemanly manner, no one ought to object to it, and it must be productive of good. The subject presents many tempting aspects which we have not now time nor space to consider. We feel that the profession do not do justice to themselves in occupying so generally as they do the attitudes of readers and not contributors to medical journals. Gentlemen, give us your *cases*.

Since the above was written, we have received the following communication, which comes within the scope of our remarks:—

MESSRS. EDITORS,—In your prefatory note to my communication of the 23d ult., you remark, in reply to my inquiry, that "Dr. Cotting's apparatus works well and comfortably for the patient as it stands."

Now, permit me to say, that by a man who looked no deeper than the surface, this might be quietly received as conclusive; but when you and I come to look below and see the sartorius and gracilis muscles strained as tight as they can be, while the rectus, biceps semitendinosus and semimembranosus are in a thorough state of relaxation; and when we come to consider that the entire force of the extending and counter-extending appliance is to be exerted upon these two muscles alone, during all treatment in this position, we shall most assuredly hesitate about accepting the dogma.

In Dr. Cotting's note, to which you refer me, he remarks, after referring to Hartshorne's and Flagg's arrangements of the long splints, "better than either is that which dispenses altogether with the inner long splint, so apt to excoriate the perinæum under the best care." A more absolutely true remark was probably never made; and I will add, that equally better still, is that which dispenses with the outer long splint also, with the perinæal belt, and the ankle gear.

Dr. Cotting, in the aforesaid note, remarks:—"that notwithstanding Mr. Pott's very ingenious and often-quoted arguments in favor of the bent position, I give decided preference to the straight," &c.

Now, the fault in Mr. Pott's case did not lie in his arguments, but in his practice. Although his theory, based upon physiological facts, was eminently correct, practically he was altogether at fault, because he devised no apparatus with which a broken thigh-bone could be thoroughly treated upon the true principle.

The early history of this subject shows that the straight position was first adopted, and the apparatus with which the treatment was applied was of the most simple and efficient kind. The patient was laid upon his back, on a good bed, and a sharpened stick, about two inches in diameter, was driven through the bed, between his thighs close to his body, and into the floor; and then a suitable gear

was adjusted about the ankle, to which a strong cord was fastened, and at the end of this cord a weight was suspended, drawing over the foot of the bedstead, heavy enough to draw and hold the fragments in their proper place.

The whole dispensation of long splints, from beginning to end, amounts to nothing more nor less than modifications of the means of carrying out this plan of treatment. There may be men bold enough to say that the long splints constitute improvements in the means of treatment upon this plan.

But Mr. Pott discovered the *fact* that the plan itself was radically defective, and that such being the case, it was utterly impossible to apply any *satisfactory* treatment to it. But he was answered that the treatment worked well in practice, and the patients were made comfortable. He did not accept this—he saw the error, and he engaged with it. He insisted, that inasmuch as the muscular arrangement secured the thigh against the possibility of being flexed backward upon the spine, and limited its movements in the opposite direction only by contact with the abdomen, there could be no possible sense in placing the fractured limb, for treatment, at one of the extreme limits of this mobility. Then he adopted the imprudent extreme of treating his cases without any retentive appliance whatever, which was undoubtedly the result of his want of mechanical ingenuity. Yet, notwithstanding this monstrous defect, a respectable share of the surgical world were certainly disposed to look with favor upon both his theory and his practice.

It is true, that we have no intimation in Mr. Pott's writings, that he ever ascertained the exact angle upon the axis of the spine at which the thigh should be placed for treatment; but he did a great work when he broke in upon that time-besotted error, the straight position.

If Mr. Pott had clearly comprehended the whole truth in his theory, and had devised some efficient means of conducting treatment upon it, the present tendency to a sad relapse, in the profession, would probably never have set in. It seems strange that he could not have seen, that the femur, in treating for fracture, should be placed at right angles with a line drawn from the anterior superior spinous process of the ilium to the tuberosity of the ischium. But there is no evidence that he ever saw it.

And it appears to have been as difficult for his followers to think of anything but the double inclined plane, as a means of treatment, as it has for the followers of Arnaud to think of anything but the long splint.

Now, you perceive at a glance, that if a patient with a broken thigh were placed in a horizontal position upon his back, and a double inclined plane, so constructed as to elevate the thigh to the angle above indicated, were placed under it, it would constitute a relation of things upon which it would be very difficult pursuing the treatment for any length of time; and hence the utter impossibility of constructing the ordinary double inclined plane in such a way as to make it fit to be used in such cases. Yet Dr. Mott, of New York, writes to Prof. Hamilton, that, if *his* thigh were broken, he would have it treated upon the double inclined plane. So you see that Dr. Mott, "after the abundance which he has seen," would, for *himself*, prefer this most shiftless arrangement to any other or all of the modifications of the long splint. And why? Simply because there is a charm in being somewhere in the neighborhood of the truth.

If I were to have my unrestrained choice of the means of treating fracture of the thigh, I would have a fracture bed, so constructed that the plane upon which the thighs rest, should be flexed upon the body plane by the turning of a crank at the head of the bed; to be retained at the proper angle by means unconnected with the planes underlying the legs. The thigh planes should be so constructed that their length may be increased or diminished to fit the various patients, with a suitable aperture through the middle to accommodate the evacuations. The leg pieces being attached to the thigh plane by hinges, would be free at the lower ends, so that they might be placed in a horizontal, or any other position without changing the position of the thigh plane. The whole should be so poised upon an axle near the middle of the thighs, that, when bent up, it might be set right up like a chair, which would be the natural position for the evacuations. This should be supplied with an excellent hair mattress, being suitably fastened, when it would be complete.

In working this bed, the turning of the crank in one direction lets the hips

drop down while the knees are raised until the proper angle is attained at the hips, when, by increasing the length of the thigh plane, while the leg is placed nearly level, all the benefit that can ever be derived from extension and counter-extension will have been secured without any of the disagreeable fixtures and fastenings inseparable from the straight position and the necessities involved in it.

Having by the above means "set the bone," I would secure it in the many-tailed bandage and concave splints, and fasten it to the bed, &c. &c.

Now, if I only claimed that the result of this mode of treatment was *equal* to that in the straight position, the arguments and advantages would be all on my side; but I claim more.

E. DANIELS, M.D.

Owego, N. Y., Oct. 14, 1861.

THE annual course of lectures before the Harvard Medical School will begin on Wednesday, Nov. 6th, at 12 o'clock. The introductory lecture will be delivered by Prof. Holmes. All gentlemen interested in medical science are cordially invited to be present.

WE would remind the members of the Massachusetts Medical Benevolent Society that their Annual Meeting will be held at the rooms of the Massachusetts Medical Society, in Temple Place, on Thursday, the 31st inst., at 4, P.M.

PHILADELPHIA MEDICAL SCHOOLS.—The Introductory at the opening of the winter session of medical lectures at the University of Pennsylvania, was delivered by Professor William Pepper, on Monday, the 14th inst. It treated of the progress of medical science and the means of attaining it. On the evening of the same day Professor Franklin Bache gave the introductory lecture, which was of a practical nature, at Jefferson Medical College. On Tuesday evening, 15th, the introductory before the Philadelphia School of Anatomy and Operative Surgery was delivered by Professor Agnew. It was devoted to a biographical sketch of Baron Larrey, surgeon to Napoleon's army.

NEW YORK MEDICAL COLLEGES.—The Bellevue Hospital Medical College, an announcement of the first course of lectures of which has been published in our advertising sheet, was inaugurated with appropriate ceremonies on the 18th inst. The *Medical Times* contains full reports of the proceedings, comprising the introductory address by Professor B. W. Macready of the chair of *Materia Medica* and Therapeutics, the address of Professor Taylor, President of the Faculty, and the speeches of Hon. Simeon Draper, Archbishop Hughes, Rev. E. H. Chapin, and James T. Brady, Esq.—The winter sessions in the other Medical Colleges in New York were opened, with appropriate introductory addresses, on the 21st.

THE Board of Medical Examiners for the State of Pennsylvania convened at Harrisburg, Oct. 6th, for the examination of candidates for the posts of surgeons and assistant surgeons. The board consists of Drs. W. Worthington, T. Green, and W. Corson.—President, Surg. General H. H. Smith. One hundred and sixty-five candidates were present.

WE learn from the Boston *Transcript* that Surgeon J. H. Baxter, of the 12th Regiment Mass. Volunteers (Col. Webster), has received the appointment of Acting Brigade Surgeon, 1st Brigade (Gen. Abercrombie, Banks's Division). Dr. Baxter is a son of the Hon. Portus Baxter, M. C. from Vermont, and is said to be a most accomplished young surgeon.

In a communication in the *American Medical Times*, the writer, giving his experience in the Army of Western Virginia, says:—

"First, wounds from small rifle bullets—such as deer and squirrel hunters use throughout our country—or buck shot, are seldom dangerous, unless they happen in a vital organ. They rarely break a large bone, or injure the muscular tissues to any considerable extent. They work their way between tissues rather than pierce them, in consequence of being easily deflected from their course. Occasionally, however, they produce bad wounds of arteries, by only partly dividing them, thus leaving them in the most favorable condition for severe hemorrhage;

but these small missiles produce little shock. Second, wounds from the Enfield rifle, and the rifled musket, are *always serious*, although they may *appear* but slight. These bullets produce a hideous destruction of tissue, tear bones and everything else to pieces; produce severe shock, extensive sloughing, with great danger of secondary hemorrhage. A wound of this kind resembles a cog-wheel wound, or that from some other crushing machinery, more than any thing else, yet this does not describe it. The part is livid, the openings of both entrance and exit are ragged, the latter generally presenting everted edges, with masses and shreds of various tissues protruding from it. Hemorrhage is sometimes very free, at others scarcely any, although the same vessel may be wounded in both cases.

"I have never seen a recovery from one of these Enfield rifle wounds involving a large bone, where amputation was not performed early; that is, was not a primary amputation. The bone is uniformly comminuted, and the fragments are very sharp, so that the patient will die almost to a certainty from irritation, and the discharge, if he do not from gangrene, which is not uncommon, even if the large vessels escape injury.

"Third, the wounds produced by shells resemble those made by splinters, as in railroad accidents, more than any thing I think of. There is usually not much contusion, but frequently much laceration. Sometimes an angular fragment will make a clean cut, followed by free and dangerous hemorrhage. The fragments, if the shell has exploded at some distance, frequently make long lacerated wounds, and penetrate and lodge in the tissues, and are difficult to extract. These wounds are dangerous, but not so bad as those made with any of the large rifle bullets, unless the fragments happen to be very large."

LONGEVITY IN FRANCE.—The average number of persons who die annually in France, at the age of 100 and upwards, is 148. This longevity is mostly attained in the mountainous departments, but the department of the Seine furnishes a fair share. There does not appear to be any distinct relation between the number of cases of great longevity, and the average duration of life in the several departments.—*British American Journal, from the Medical News.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 26th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	30	29	59
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	33.0	34.1	67.1
Average corrected to increased population, . . . . .	..	..	74.78
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
13	7	0	1	2	0	1	1	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.176	Highest point of Thermometer,	63.0
Highest point of Barometer,	30.718	Lowest point of Thermometer,	27.0
Lowest point of Barometer,	29.640	General direction of Wind,	W.N.W.
Mean Temperature,	48.4	Am't of Rain (in inches)	0.171

PAMPHLETS RECEIVED.—Reporter of the new Patent Artificial Leg. Published by D. De Forrest Douglass, Inventor and Manufacturer, Springfield, Mass. Second Edition.

DIED.—At West Amesbury, Dr. Benjamin Atkinson, 55.

DEATHS IN BOSTON for the week ending Saturday noon, October 26th, 59. Males, 30—Females, 29.—Accident, 1—bronchitis, 2—cholera infantum, 7—consumption, 13—convulsions, 2—cyanosis, 1—diarrhœa, 1—dropsy of the brain, 2—drowned, 1—dysentery, 1—entero-colitis, 1—scarlet fever, 1—typhoid fever, 1—disease of the heart, 1—infantile disease, 1—intemperance, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 2—marasmus, 1—old age, 2—paralysis, 1—puerperal disease, 2—scalded, 1—disease of the stomach, 1—syphilis, 2—teething, 1—unknown, 4—whooping cough, 2.

Under 5 years of age, 30—between 5 and 20 years, 3—between 20 and 40 years, 13—between 40 and 60 years, 6—above 60 years, 6. Born in the United States, 44—Ireland, 11—other places, 4.

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THE PRINCIPLES AND PRACTICE OF OBSTETRICS.—A REVIEW.*

[Communicated for the Boston Medical and Surgical Journal.]

PROFESSOR BEDFORD is so honorably known to the medical world by his "CLINICAL LECTURES" that his contribution of an elaborate work upon the Principles and Practice of Obstetrics will not be unexpected, although, unlike its predecessor, it finds a well occupied field, of circumscribed limits, and without any large opportunities for theoretical or practical novelties. With so much, therefore, to discourage the labor which is indispensable to success in this highly cultivated department, it is evident that the industrious author of the "Clinical Lectures," and an eminent teacher of Obstetrics for twenty years, has not offered to the profession a work upon the latter subject of inferior excellence. We may be sure that a work which has been rendered into French, and illustrated by 200 additional pages of an alphabetical commentary, at the hands of a distinguished Frenchman, will not be the parent of any unworthy offspring.

Our author has explored the whole of his ground in a thorough, luminous, and systematic manner, and perhaps more than any other has adapted his work to the requirements of medical pupils. Consisting of a series of Lectures delivered before medical classes, it naturally commends itself to the sympathies of medical students, and as a text-book for medical schools; and this especially on account of its method, its completeness in respect to facts and the latest improvements, and its compact yet familiar and lucid style. We do not intend to institute any critical comparison of this with other able works upon obstetric science, but simply to express an opinion that it is inferior to no other in all that constitutes excellence, while as a text-book we are inclined to think that it has a general superiority over all others. We know of no other work that abounds with greater evidences of research, or which is more exact, or more philosophical, in the department to which it is

* The Principles and Practice of Obstetrics. By GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Obstetrics, in the University of New York; Author of "Clinical Lectures on the Diseases of Women and Children." Illustrated by four Colored Lithographic Plates and Ninety-nine Wood Engravings. Pp. 731. New York, S. S. & Wm. Wood, 389 Broadway. 1861.

limited; and it is quite exempt from diffuseness and extraneous matter, unless here and there an allusion to provoke an agreeable sentiment, or a little pathos to equally invest the pelvic bones, the forceps and the crotchet with a romantic interest. An example of the comprehensive brevity of style in the statement of general propositions will show our author's aptitude in this respect, while his details are not less addressed to the facts and their logical application. Thus, at page 110 we find the following upon—

“Reproduction—Meaning of the Term.”—Reproduction, in its strict physiological meaning, implies the development of a being, so that it may be capable of an external or independent existence; hence, it consists of a series of processes, which, when completed, constitute the entire reproductive act. The first of these processes, in the human species, is the contact of the two sexes, known as copulation. The second process is fecundation, which consists in the exercise of a vitalizing influence, through the male, on the germ furnished by the female. This act of vitalization, or imparting life, gives rise to another process, conception. In strict physiological truth, it may be said that the male fecundates, and the female conceives. Then follows gestation, during which the embryo grows and becomes developed; and when its development has been sufficiently accomplished, labor occurs, the object of which is to expel it from the uterus. As soon as this is effected, the entire relations of the new being are changed. It breathes, and, therefore, has a circulation of its own. It is no longer dependent upon its parent for the elaboration of its blood; its lungs, which, before birth, were without function, commence at once their round of duty; the first gasp of the infant may be considered its declaration of independence.”

We shall now endeavor to present our readers with a general analysis of the work, which cannot fail of being far more acceptable than our speculations upon its merits; and we proceed, therefore, to the important matter of a table of contents, which, it may be said, besides a copious index, has been liberally supplied by the author.

Professor Bedford lays out the foundation of his work in his first lecture by a description of the bones of the pelvis, about which the whole practical part is interested; and, although “the dry bones of the skeleton” is proverbial with students of anatomy, our author has contrived to impart to those of the pelvis a peculiar interest, while he has aided the learner here, as throughout the work, with well-executed engravings.

The second lecture is devoted to the divisions, articulations, arcs, and uses of the pelvis. A careful attention is given to all of these important topics, and some practical errors which have hitherto obtained are corrected. What is most difficult to the student, such as the straits and their planes and axes, is well illustrated.

The third lecture discusses the foetal head in its divisions and presentations, and the fourth exhibits the mechanical conditions of labor in vertex presentations. We almost regret, for the sake of our critical acumen, that we have not been able to detect any flaws in this trial-ground of the author's ability. Indeed, he is himself, hereabouts, a successful commentator upon the speculative opinions of others, a good example of which occurs in the third lecture where he is reciting the various hypotheses as to the great

proportional frequency of head presentations—from Hippocrates and Galen, who supposed that the head was uppermost till the seventh month of gestation, when “the foetus made a somerset” and the heels went up, down to Paul Dubois of our own day, who published, in 1832, an essay referring the phenomenon to “an instinctive or physical influence exercised by the foetus,” but all of which are considered as chaff before the questionable theory of reflex nervous actions, “ably advocated by Prof. Simpson.” Our author, more wisely than the rest, surmises that, “in lieu of any one of these causes being *per se* sufficient to explain the position of the foetus in the womb, the fact is due to a combination of circumstances not yet, perhaps, properly comprehended.”

The foregoing discussion reminds us of our author's collation of hypotheses as to “the *determining cause* of labor or that peculiar influence which first excites the muscular fibres of the uterus to contraction,” and his own ingenious interpretation of that phenomenon, which occurs in his twenty-second lecture. After a critical examination of the principal doctrines, especially the ovarian hypothesis of Dr. Tyler Smith, and the orificial irritation of Dr. John Power, both of which are founded upon the laws of reflex nervous action, and having successfully refuted the whole, our author delivers his own rationale in considerable detail. The subject involves an inquiry of great physiological interest; but our limits will admit only of a few comments upon our author's doctrine, which is predicated of the principle that—“there seems to be a necessary connection between the first spontaneous movement in the muscular walls of the uterus and a matured development of the muscular structure of the organ itself.” This is beyond contradiction or doubt; but is it anything more than the assertion of an evident fact? Does it expound the great and wonderful problem—the *how* or the *why* the “spontaneous movement” grows out of the “matured development of the muscular structure”? Are there any analogies, any physiological law, to sustain the conclusion; for our author supposes that there is an inherent ability in the fully developed uterine muscular structure to institute the parturient process independently of any other exciting cause, and, above all, that “it has no connection whatever with a reflex or nervous force”—not the least. Here our author launches into the maelstrom of reflex nervous actions, about which physiology and medicine are most profoundly interested, but where all but skilful navigators are liable to shipwreck. In the matter before us we think that our author was upon exactly the right ground, but that, instead of following his favorite “analogies of Nature,” he errs in assuming, upon the authority of others, that peristaltic motion of the intestine is independent of the nervous influence, for the sake of applying it analogically to uterine contractions. But it has not been at all shown that natural peristaltic motion is not excited by reflected nervous influence.. Experiments have only

shown that other causes are capable of exciting those movements, such as atmospheric air, mechanical injuries, electricity, &c., just as in the case of the extirpated heart. In the natural condition of the intestine there must be equally an exciting cause of the peristaltic movements, as much so as in the case of the heart, or of the respiratory muscles, or of the iris, or of the sphincters, and, as in the latter cases, what else than the nervous influence in that of the intestine? And is not this confirmed by the effects of cathartics and suppositories? What else can there be than an augmented nervous influence excited by the cathartic in the nervous centres and thence reflected upon the intestinal muscular tissue that increases its natural movements? And if this be so, as it demonstrably is, what does our author's "analogies of Nature" (in which he has "an abiding faith," p. 313) say as to the exciting cause of the natural movements? Why are the natural movements suspended in jaundice, or when food is long withheld, unless bile and the ingesta be remote causes of those movements, and how else can they reach the intestinal muscular tissue than through reflected action from the nervous centres? How else can the stimulus of the blood affect the muscular substance of the heart than through the circuitous route of the nervous system?

Physiologists are also greatly in error in supposing that the nervous influence ceases to operate immediately after apparent death, and therefore in the inference that the expulsive movements of the uterus after apparent death are not excited by the stimulus of the nervous influence. The expulsive efforts are ample proof that there is still remaining life; and various recorded facts substantiate the continued action of the nervous system as long as muscular irritability and contractility remain. It is true, it suits the special objects of some physiologists to assume that life becomes extinct in the nerves almost as soon as the heart ceases to pulsate; but we have seen (and others also), and formerly recorded a case in which the same contractions of the voluntary muscles continued for an hour and a half after apparent death, from malignant cholera, as had existed before the subject ceased to breathe. Numerous facts relative to organic life concur in showing the same persistence of action in the nervous system, under special circumstances.

As to the experiment of destroying the lower portion of the spinal cord and the accomplishment of labor notwithstanding, it has been here completely neglected that the uterus is still connected with the essential parts of the nervous system by contributions from the sympathetic nerve and other parts of the cerebro-spinal system. Moreover, it is now well ascertained that the ganglia of the sympathetic nerve, even certain parts of that nerve, the auditory even, may become centres for reflected nervous action, especially when preternatural influences are in operation, as when, for example, vesicants subdue deep-seated inflammations. And so

when the intestines are extirpated and roll about upon the table, ganglia and plexuses of the sympathetic nerve may, under the preternatural exciting causes, become the media of reflected nervous influences. In the case of the parturient efforts after the destruction of the lower portion of the spinal cord, that very injury calls into operation other resources in the nervous system with which the uterus is indirectly supplied. We admire our author's reasoning from the "analogies of Nature" where he is so successfully employed in refuting the hypotheses of others who have endeavored to expound the philosophy of incipient labor, and he allows, in his twenty-second lecture, that "the spinal cord, the essential nervous centre, plays an important part in the general movement, resulting in the delivery of the fœtus and its annexæ," and that "it is perfectly correct to say, that, as a general rule, labor is in part accomplished through reflex nervous action." But relying upon that poor experiment of destroying the inferior portion of the spinal cord, he tells us that—"the inherent action of the uterus will, under certain circumstances, suffice to accomplish the birth of the child, showing incontestably that childbirth is not essentially dependent upon nervous agency." The supposed "inherent action" may be sufficient, *per se*, for a single contractile movement, but an exciting cause is necessary to a long series of alternate contractions and relaxations. Our author, however, readily concedes that Nature has no unnecessary multiplication of fundamental causes, and as he is obliged to admit, "that, as a general rule, labor is in part accomplished through reflex nervous action," he had only to follow out that "general rule" after stating his proposition that there is "a necessary connection between the first spontaneous movement in the muscular walls of the uterus and a matured development of the muscular structure of the organ itself," and have applied the rule of analogy as it respects the admitted agency of the nervous power in the ulterior uterine contractions to the first in the coincident series, and he would have fully expounded a problem which not only lies in the depths of physiology but is elementary in many natural and pathological processes. That "matured development" becomes the exciting cause of reflex nervous actions, just as the want of atmospheric air in the lungs is the remote cause of the reflected nervous influence that determines the respiratory movements—excepting in the case of the uterus the compounded sensitive and excito-motory nerves, which are the channels of the reflected stimulus, appertain exclusively to the muscular tissue of the organ. This, however, has its exact analogy in the reflex nervous actions upon which, as we have shown on another occasion, roosting and sleeping in an erect posture depend, as also the spasms which are sometimes excited in irritable muscles of the lower extremities by a forcible act of the will. In the former case there is a natural adaptation of the muscles to that exercise of the will, which, by placing them in a rigid state,

establishes a reflex nervous action that maintains them in permanent contraction, as in the case of the sphincter muscles. The same natural provision becomes developed in the gravid uterus to subserve the exigencies of parturition, and is allied to that irritable state of the voluntary muscles in which the will may institute spasmodic movements. As soon, however, as "the determining cause" has instituted the process of labor, the point of departure for the reflected stimulus of the nervous power becomes compounded, and the foetus participates as an exciting cause of the reflected nervous influence.

Our author's fourth lecture, as will have been seen from what we have said of its subject, is one of the most important. It presents a "description of the mechanism by which the child, in the several positions of the vertex, is enabled, with safety to itself and parent, to pass into the world," and all that is relative to the parturient process in the several positions is related with the skill of an accurate observer and sound thinker. And here, too, as throughout the work, the author inculcates a large dependence upon physiological laws (better known as Nature), and deprecates the officiousness of Art. He displays a tender and philosophical humanity as well towards the intra-uterine child as the mother, and is therefore conservative of the foetus as far as possible—perhaps too far. Nevertheless, he says—"if Nature be really so full of wisdom, and so bountiful in her provisions, it may be urged that she requires no assistance from science, being thoroughly adequate to the efficient discharge of her duties." "But it will sometimes happen that she is contravened in her arrangements by circumstances that she cannot control, and therefore her relief must be found in the judicious interposition of science." "To be her substitute, in truth and effect, you must have been her disciple, and learned from her teachings the series of processes which, in the aggregate, make up what is known as the mechanism of labor." He supposes a lingering case, occasioned by an impaction of the head, in a well-formed pelvis, where "Nature has been vainly struggling to accomplish the movements of *flexion*." Shall the perforator and crotchet come to the rescue of the mother, as has been too often the case? Certainly not. The enlightened practitioner would, by simple manipulation, "assist Nature in producing the movement of *flexion*," and thus save both mother and child. "Suppose, however, after the movement of *flexion*, the strength of the mother is so much exhausted as to positively indicate the necessity of immediate delivery." The proper means will be the forceps. "But," says our author, "remember this essential fact, in the employment of the forceps, the head being in the diagonal position—after locking the instrument, and before making any extractive force, the first thing to be done is to turn the forceps gently from left to right, for the purpose of producing the movement of *rotation*—by the neglect of which many a child

has been sacrificed, and the mother cruelly lacerated." Our limits compel us to hasten on with our analysis.

The fifth lecture treats of the deformities of the pelvis. The author, however, does not "think it necessary to enter upon a minute description of the various pelvic deformities enumerated by authors, but prefers stating some general facts that will lead to the best practical lessons for the lying-in chamber."

The sixth lecture describes the organs of generation, and in that circumstantial manner which not only satisfies the immediate objects of obstetrics, but subserves all the physiological conditions and the anatomical relations to morbid states.

The seventh lecture is appropriated to menstruation, and the eighth to re-production. These subjects are treated practically and philosophically, and the latest researches are amply stated.

In the ninth, tenth, eleventh, and twelfth lectures the author exhausts the subject of pregnancy. He maintains that gestation is not a pathological condition, and, after very full and satisfactory arguments, uses the following language:—

"So far, then, from regarding gestation as a pathological state, we maintain that, as a general principle, it is entitled to be denominated *a period of increased health*. I am speaking now of the general rule, and not of the exceptions, to which we shall hereafter have occasion to direct your attention. Indeed, some of the very best observers have declared—and the fact is well established by statistical data—that the probability of prolonged life is increased as soon as pregnancy occurs. Let us now take the converse of this proposition, and you will see, in its results, an additional proof that gestation is not in truth a diseased condition; look, for example, at those females who, either from choice or necessity, lead a life of celibacy, and see how much greater is the record of their mortality. Marriage and pregnancy, therefore—however true religion and an earnest love for God may fill the cloister by devoted and self-sacrificing ladies—should be regarded as among the covenants of nature, and the demonstration is found in the fact of the better health and greater longevity of those who keep these covenants inviolate."

Lectures thirteen, fourteen, fifteen and sixteen are devoted, respectively, to the rules for ascertaining the existence of pregnancy, to extra-uterine pregnancy, to the occasional derangements accompanying pregnancy, and to displacements of the uterus in pregnancy.

In lectures seventeen and eighteen are considered the foetus and placenta, and the nutrition and development of the foetus.

The nineteenth lecture treats of abortion, physiologically as well as practically, and considers opinions and experiments with critical ability. It is worthy of particular remark, as related to our discussion of the determining cause of labor, that our author finds that reflex nervous actions often *institute* abortion. Indeed, he regards it "as one of the causes more or less constantly at work in the production of abortion." Can there be any other cause than the nervous influence, operating as a stimulus to the organic properties of the muscular substance of the uterus, which are the efficient causes of the parturient movements, but which require as much an exciting cause as the muscles in respiration

or in voluntary motion, and that cause is common to the whole. It is brought into operation by a great variety of more remote causes, both mental and physical.

Lecture twenty, upon molar pregnancy, has its scientific disquisition, and embraces many important facts and curious details relative to *true* moles and *false* moles, "from the days of Hippocrates."

Lecture twenty-one discusses and classifies the varieties of labor, considers the inception and duration of pregnancy, and the opinions of distinguished observers.

Lectures twenty-two to twenty-six comprehend the whole subject of labor, the general topics being, respectively, the determining cause, the expulsive efforts, natural labor, duties of the accoucheur in natural labor, and management of the placenta; all of which are treated with a tact and judgment that cannot fail of advancing this important interest of humanity.

Lecture twenty-seven is employed about post-partum hæmorrhage, in which the author appears to have neglected nothing of importance, and has availed himself of his ready resource to impress a recollection of what is to be done in the emergencies of this critical juncture.

In lecture twenty-eight the treatment of the puerperal woman, and of the new-born infant, is considered in a circumstantial manner that is especially valuable to the inexperienced, and which rarely finds its way into obstetrical works.

The whole of lecture twenty-nine is given to multiple pregnancy and superfœtation; and the whole of lecture thirty to inversion of the uterus, and yet so great is the variety and interest of their relative subjects that we see nothing to abridge and nothing to improve.

In lecture thirty-one the important subjects of preternatural labor, placenta prævia, and unavoidable hæmorrhage are discussed with unfailing ability.

Lecture thirty-two is appropriated to eccentric puerperal convulsions, and lecture thirty-three to centric convulsions. Although these subjects are inviting to theoretical ingenuity, our author is mostly practical, though we apprehend that the considerable space which is allotted to uræmia, &c., had better have been occupied with the realities of nature. In the thirty-third lecture we encounter the terms "*urea*," "*uræmia*," "*toxæmia*," "*kiesteine*," "*uræmic intoxication*," "*albuminuria*," "*blood-poisoning*" and "*eliminators*," a vocabulary which was probably considered necessary to propitiate the humoralists of the day, and as "a posting up of the latest improvements." Nevertheless, such are the profound displays of nervous force in the voluntary muscles that all but the last of the foregoing terms are rendered expressive of the relations of cause and effect of the admitted agency of the nervous power, while, very consistently, the treatment of this appalling malady is made to depend upon the "*eliminators*." It is but fair,

however, to say that our author, although tarrying here a good while, is very shy if not very sick of his company.

Lectures thirty-four to thirty-seven are devoted to manual labor, the various presentations, divisions and rules of version, and their relative topics. They are very complete studies, succinct, lucid, and attractive.

Lectures thirty-eight to forty-two cover the whole ground of instrumental delivery, and are marked with our author's characteristic ability. They form an important part of his work and must be studied to be appreciated, certainly to be rendered of that practical value to which they may be applied. We are glad to see him protesting against an indiscriminate use of the forceps, which has occasioned "numerous appalling examples of injury and death" where nature would have accomplished a safe delivery. Had our room admitted, we should have been glad to have quoted our author's demonstration in behalf of "conservative midwifery."

Lecture forty-three treats of premature artificial delivery, which is extensively and well examined. The following paragraph is too suggestive upon a vital question to be omitted:—

"It now remains for us to examine the important question—is abortion, under any circumstances, a justifiable alternative? This question has been much controverted, and it is one on which the sentiment of the profession is not concurrent. In order that the special points in the discussion may be fully appreciated, they may be advantageously presented under the two following heads: 1st. When the maternal passages are so contracted—no matter from what cause—as to render it certain that a *viable* fœtus cannot be made to pass. 2d. When the maternal passages are normal, but the mother's life is involved in alarming peril by the occurrence of some serious complication, such as convulsions, hæmorrhage, or excessive vomiting. It is manifest that the moral part of the question turns upon the simple interrogatory—is the embryo in the earlier states of its existence a living being? All correct physiology demonstrates that it becomes in truth, at the very moment of fecundation, imbued with vitality—the contact of the sperm cell and germ cell constituting the *act of the breathing of life*."

Lectures forty-four, forty-five and forty-sixty treat, respectively, of puerperal fever, puerperal mania, and anæsthetics. As to the treatment of puerperal fever our author belongs to the school of the symptomatists. "In inflammatory puerperal fever the prompt abstraction of blood is called for"; "in one word, *make your patient faint*"—repeated, he continues, in three or four hours if necessary. Perhaps leeches, also, cathartics, &c., follow. "In the adynamic form of the disease, characterized at the very commencement by a sinking of the vital force, depletion is not to be attempted. Stimulants, nutriment, and pure air are unequivocally indicated." So said Gordon, Denman, Hey (all eminent men); but their sad experience (and our author admits as much of the plan) convinced them of their error, and shifting from stimulants to copious blood-letting, they rarely lost a patient. For our part, we fully concur in the ultimate avowal of Mr. Hey, that—

"There is a vast difference in the puerperal fever at different times, and in different situations and circumstances. In some

cases it appears like a phlegmonous inflammation; in others it destroys with more rapidity and certainty than the plague. But the means of cure are *precisely the same* in both; but in the worst forms the measure of bloodletting is *greater and less limited*, and the period within which it must be employed is far more circumscribed." These are the cases in which he had inculcated the disastrous stimulating treatment.

Our kind-hearted author has a doubtful word for the *opium* and the *veratrum viride* treatment, and pays "a left-handed compliment" to Dr. Graves, of Dublin, in intimating that he may have been the accidental author of the narcotizing school.

Before taking leave of our author we would again commend his work for its unsurpassed ability in all that appertains to scientific and practical midwifery—the practical aspect being its prominent characteristic. It is a national work, and should therefore, in having no superior competitor, become the text-book in the Medical Colleges of the United States. It is time that a greater interest should be manifested for our own medical literature—not a whit behind that of Great Britain, which has hitherto contrived to over-ride our own. We have permitted ourselves to be whipped into this ignominious condition—allowing all that may be due to the jealousies of domestic competition; and that there is no relaxation of the systematic discipline from abroad, or of our submission to it, we are assured on turning to the Review of Professor Gross's late "American Medical Biography," in the July number of an American edition of the *British and Foreign Medico-Chirurgical Review*, in which, after a profusion of ridicule of what it denominates the "biographers and the biographees," and a characteristic John Bull hit at "*the Union now in process of disruption*," it is said, as a final and summary conclusion, that, "*We shall be sorry if it is ever our lot again to meet with an American Medical Biography.*" This very Journal, too, which never spared what is able in the medical literature of these United States (but only what is ephemeral), notwithstanding its re-publication and support for near half a century by those whom it maligns, now, taking council of the past and encouraged by the hope that "*the Union is in process of disruption*," would not only extinguish our "*di immortales*" and all their contributions to a Nation's best wealth, but *the very Nation itself*. But able and influential as we concede the Journal to be, few, indeed, as much so (which is our palliation, not justification), "*we still live*," and we will, moreover, hazard the prediction that PAUL GENTIL, M.D.P., of Paris, will find a greater interest in employing his accomplished pen at a translation of the work before us than when engaged in like manner with our author's "DISEASES OF WOMEN AND CHILDREN."

M. PAINE.

New York, October, 1861.

PINEL, BROUSSAIS AND LOUIS.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Without any pretence of originality, I have compiled the enclosed from some foreign paragraphs. E. S.

Pinel is represented to have been a stirring and emphatic personage, for a time holding the sceptre of medicine in France. He occupied a chair at the Academy, and at the faculty clinique; books, journals and lecturers drew their inspiration from his doctrines. In his philosophy the problem of medicine took this formula:—given a disease; to determine its place in a nosographic category. Thus were maladies numbered, labelled and systematically classed as objects of natural history. If some patient, blind to the beauties of science, insisted on being healed, he was silenced by the exhibition of a perfect nosology.

M. Bouillaud allots to medical doctrines the longevity of roses. The Pinelists prevailed fifteen years, when *l'Examen* of Broussais appeared. The Pinelists burned their nosographies, and Pinel, *hors du combat*, soon died. The historian says their books left not even a pinch of ashes. Broussais sounded a flourish of trumpets, ploughed and harrowed the field of medicine, then sowed there his new grain.

His doctrine held that there was no specificity in diseases, their etiology or treatment. "Every malady," said he, "is a signal of distress thrown out by a suffering organ; what one, we must ascertain. There are but two diseases, inflammation and sub-inflammation. The clinical problem is, where shall we place the leeches, and how many." And matters are still further simplified; gastritis constituted the immense majority of maladies, and if you applied the leeches to the epigastrium, the chances were a thousand to one in your favor. All the acute diseases, fevers, exanthems—all the chronic diseases, cutaneous—gout, gravel and neuroses, were gastritis or gastro-enteritis; and what but leeches and diet could be necessary? A patient complained to Broussais that his regimen was killing him, that he was dying of hunger. "Well," said he, "I will satisfy you, *bete carnassière*; you shall have a spoonful of broth in a glass of water." As Talleyrand used to say, "this is more than true, it is probable."

Then came M. Louis, armed with several thousand brute facts, which he hurls at Broussais. Louis, says the French editor, would be a man of genius if, in the language of Buffon, genius were only patience. The bloody dynasty of Broussais falls, and Louis proclaims that truth lies in things and not ideas; the senses only are reliable, mind is delusive. To observe, is to take notice how many times the patient has turned in bed, how often he spat, sneezed and coughed; then average the results. As to therapeutics, Louis ordains the remedy nearest at hand—quinine, opium,

warm or cold water, *ad libitum*—or nothing at all. Then make up the mortuary statistics and decide on treatment.

The Frenchman speaks of the “organopathy, the pleasantry and the cacophony” of M. Piorry. If life is the result of organization, and maladies are but the lesion of organs, Piorry is right. Organopathy is the last new word in medicine, and the terminology of M. Piorry is logical, if not euphonious.

In 1837, Risueno d’Amador spoke as follows from the tribune of the Academy, upon the question of statistics applied to medicine:—

“Your school has devised a new method, it counts facts and pretends to appreciate their value by their number; it adds, divides and subtracts, and with candid simplicity believes it is perfecting the methods of art. The foundation of your method is probability; now what else is probability but the theory of chance? To invoke probability in this sense is to renounce all certainty in medicine, all rules of induction by reasoning from the facts to science. It is substituting for experience, observation and reason, the mechanical and inflexible operation of figures. This numerical method destroys true art and true observation by substituting for the action of the mind and the genius of the practitioner a blind mechanical routine. If generally adopted, it must be because it is accessible to minds of the meanest grade; because it flatters the humblest; and this is its sole title to the admiration of the multitude. Your medicine is no longer an art, but a lottery; renouncing to know how and why it acts; abandoning itself to chance on the faith of an illusory arithmetic. It is skepticism embracing empiricism.”

An anecdote is told of a physician, who, being asked if he were of the school of Broussais, or Brown, replied that he was a doctor himself.

October, 1861.

Bibliographical Notices.

A Manual of Etherization, containing directions for the employment of Ether, Chloroform and other Anæsthetic Agents, by Inhalation, in Surgical Operations; with Instructions for the Preparation of Ether and Chloroform, and for testing them for Impurities; comprising, also, a brief History of the Discovery of Anæsthesia. By CHARLES T. JACKSON, M.D., F.G.S.F., Chevalier de la Legion d’Honneur; Cavaliere dell Ordine dei S. S. Maurizio é Lazzaro; Ritter des Rothen Adler; Knight of the Turkish Order of the Medjidieh; Member of numerous Scientific and Medical Societies in Europe and America. Boston: J. B. Mansfield. 1861. 12mo. Pp. 134.

This is a very timely book, and written by the right man; a rare instance of what we want so much just now in so many different directions—the right man in the right place. No one surely could feel so jealous for the good success of ether as an anæsthetic, as he who first pointed out to us its invaluable properties in this capacity, and therefore no one would be more careful to furnish us with a safe and comprehensive guide for its use. This, we think, the author has done, and done thoroughly in the present treatise; but he has done much more than this. He has taken up the subject and exhibited it in most points of view in which it might interest either the medical man or

the ordinary unprofessional reader ; and in so doing he has made suggestions which even few of the former, conversant as they think themselves to be with the agent, would not profit by.

The first chapter is devoted to the exhausting effects of pain upon the system—the clear recognition of these effects by the ancients, and the naturally consequent efforts of medical men from the earliest days to discover some means of neutralizing them. This includes the earliest efforts to attain anæsthesia. Those made by Dr. Jackson himself are detailed in the next chapter, where a history is given of the origin of the ether discovery. This is so familiar to most of our readers as to make it unnecessary for us to even rehearse its prominent points. It suffices to say that the narrative presents each step towards the great end, as taken in a clear, rational and scientific light, each leading to the next in logical order, until the discovery, perfect and complete in all its parts, bearings and relations, is arrived at.

Chapter III., though brief, is important in giving the process for the manufacture of ether. Chloroform is treated of in the next—its mode of preparation, and test for it detailed. A review is also taken of various other anæsthetics, including the last, Kerosolene.

The fifth chapter is devoted to the introduction of etherization into surgical practice. This, of course, embraces the points that have been disputed by Morton, as to his having a share in the discovery—a dispute too recent, and too well known in all its important facts, to require us to rehearse it here. For our own part, we willingly accept the award of the Monthyon prize, as indicating the relation of the two men in the matter, “it being made to Morton for having introduced this method into surgical practice, in accordance with the directions of M. Jackson.” In quoting this literal translation of the French, we cannot but allude to the untruthfulness of the “*New American Encyclopedia*,” which, in a notice of Morton, quotes the above, but leaves out all after the word “practice.” A publication that would descend to such a dishonesty as this in a matter of fact, can be little trusted where the judgment or feelings are concerned.

The directions as to the administration of ether are very important, the more so just now, as the article must often be used when proper medical men are not at hand to direct. Inhalers and all such mechanical contrivances are discarded, and the sponge and towel preferred. The suggestions for the use of ether for various purposes, such as the exploration of wounds—to detect “malingerers” in soldiers, sailors or others—in insanity, &c. &c. are interesting, and did our space allow we should make some quotations.

The last chapters give very much in a small space, discussing the relative merits of chloroform and ether and of a mixture of the two, with various tables of cases, and general considerations. The physiological effects of ether are treated of at length, and the interesting experiments of Flourens, Velpeau, Gerdy, and many others detailed. This final chapter would admit of much enlargement, and we much wish the author would make it the subject of a separate paper for professional men. There is probably no one who could illustrate the chemico-toxic effects of the various anæsthetics upon the system, better than himself, and it is a subject that, as much as we use these agents, we know comparatively little about.

On the whole, after perusing this work, we feel that it has been interesting, and the general reader will find it more so, as the facts to

him will be newer, and they are told with an animated conciseness. It gives, also, very many facts in connection with the use of ether that ought to be more familiarly known, both to physicians and to the many. In this way we do not doubt it will prove very serviceable. But, as a medical man, we must say we wish there was more of it, and that the technicalities of the subject had been entered upon more fully. This, of course, would have perverted the book from one of the chief intents of the author. We may hope, however, that the suggestion above made will be adopted, and that we shall have something from his pen treating more intimately and rigidly of some of the most important effects of anæsthetic agents on the animal economy.

W. E. C.

Army Medical Intelligence.

[From our Special Correspondent.]

WASHINGTON, D. C., October 30, 1861.

MESSRS. EDITORS,—My last communication gave you an account of a gun-shot wound of the rectum. Since writing you, nothing of particular importance has transpired in the case. Oct. 29th, the patient made a sudden movement forward, causing an escape of considerable blood and pus from the femoral wound, without, however, retarding the progress of recovery. He sits up nearly all day, has a good appetite, and is gaining ground slowly but surely.

The second case in my series is a gun-shot wound of the arm and leg, producing most frightful laceration, and showing an almost miraculous escape. Patient, W. S., 1st N. Y. Reg't, Co. B., aged 25; intemperate habits; admitted into Hospital Sept. 24th, 1861. Sept. 21st, was quarrelling with a comrade, and while stooping down to pick up a stone, with his left arm in line with his right leg, he was shot with a Minié ball, which passed through the arm, destroying the skin for seven inches, beginning an inch and a half above the external condyle of the humerus, ploughing through the biceps muscle, and destroying the skin to the same extent on the opposite side to within an inch of the internal condyle. The radial artery pulsated distinctly, and consequently inference was drawn that the brachial artery was intact. Apparently, no nerves were injured. The wound presented a ragged appearance, was covered with a dirty gray slough, and innumerable maggots had already established their home in it. From the arm the same ball passed through the upper part of the popliteal space and the internal hamstring muscles, revealing something looking like the tendon of the great adductor muscle, which was totally destroyed. The muscles all protruded in a ragged mass, and on introduction of the probe the patient felt acute pain. From this, and from inability to evert the foot, injury of the peroneal nerve was suspected. The point of exit was less ragged than that of entrance. The posterior tibial artery was felt pulsating distinctly. From this wound the tumefaction was intense, extending to the lower third of the calf of the leg. The gray dirty slough and the maggots were here also. Both wounds were very offensive. Tongue very dry on edges, but moist on centre and tip. Pulse 92, and strong. Patient irritable, and suffering greatly. The wounds were both cleansed with

dilute Labarague's solution, and flax-seed and charcoal poultices. Half a grain of morphia was given at night.

Sept. 25th.—Maggots still seen in wound of leg.

26th.—Sloughs had in part come away, and no maggots were seen. An injection was then ordered for both wounds, which, not only in this case, but in all the cases requiring a stimulation and at the same time a disinfecting injection, has proved most advantageous. Let me give it for the benefit of your readers. R. Creasote, ʒi .; tannin, gr. xx.; aquæ camph., gtt. xv.; spts. lavand. co., ʒi . M. Use a teaspoonful in a cup of cold water. In this case its effect was most brilliant.

28th.—Wounds look clean and healthy. Smith's anterior splint was found to be applicable, and was placed on the leg and attached to the ceiling.

Oct. 21st.—Poultice removed from leg and arm, and adhesive straps applied. Patient's leg straight. Flexion ordered daily, as well of arm as of leg.

24th.—An abscess has formed in the leg, which was opened, and an immense quantity of blood and pus escaped. Arm nearly healed. Able to raise his hand to his mouth. Leg still suppurating considerably, but there is complete flexion of both leg and arm.

The results, thus far, in both the cases I have given you, are most gratifying. The first, though a much more dangerous, is hardly a more interesting one than the last, and certainly does not present a better subject for interesting study.

H.

THE following is an extract from a letter of the Assistant Surgeon of the 19th Massachusetts regiment:—

CAMP BENTON, POOLESVILLE, Oct. 25th, 1861.

To the Surgeon General.

DEAR SIR,—Thus far, we have been very fortunate in our regiment; have had no serious disease, excepting a few cases of typhoid, which here has seemed to assume a malignant type—the patients coming into the hospital with a livid countenance and delirious. We have lost but one man from this or any disease, and he died five days after entering the hospital. We have, by this morning's report, 16 in the hospital, two of whom belong to the Sharpshooters. This number seems to us rather small when we take into consideration the position of our camp, which is low and on a clayey soil, with a very poor supply of water. Besides, for the past three weeks all of the regiment, excepting four companies, have been on constant picket duty between the river and the canal, all the time exposed to the fall storms, which have occurred here with some severity.

The 20th Mass., in our brigade, fought bravely in the late action at Ball's Bluff, although it was like fighting against a rock; they were badly cut up, reporting yesterday for duty about 450 men and 300 guns. The 15th, also, did what men could, but it was of no use.

Yours truly,

J. N. WILLARD.

PIROGOFF'S OPERATION.—The Medical Director of the U. S. Army desires that exsection of the shoulder and elbow-joints should be resorted to in preference to amputation, in all cases offering a reasonable hope of success, and that Pirogoff's operation at the ankle should be preferred to Chopart's, or to amputation above the ankle, in cases that might admit of a choice.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, NOVEMBER 7, 1861.

THE following communication is in allusion to a subject which those whom it immediately concerns would do well to consider. We do not feel called upon to add anything by way of comment to the excellent remarks of our correspondent, knowing well that what we might say would probably aid little in restoring to their normal condition the blunted moral sensibilities of those who thus openly violate laws they are pledged to observe. We may, however, be allowed to indulge the hope, faint thought it be, that the sowing of a good seed, even in our poor soil, may bear fruit; and should this be the means of turning one sinner from the error of his ways, we shall feel that a service has been rendered. The manly course of Mr. Fergusson it would be well for some among us to imitate; otherwise, the Society, whose rules and regulations they are bound by their honor to obey, had better follow the example of a higher organization, and demand of them a renewal of their oath of allegiance.

MESSRS. EDITORS,—In two of your recent issues are paragraphs relating to the affair of Mr. Fergusson, of England, who, upon the complaint of his professional brethren, has at last promised “in future to decline any meeting or so-called consultation with homœopathic practitioners.” The *Philadelphia Med. and Surg. Reporter* publishes a longer editorial on the same case, in which it criticizes with great severity such meetings, and says, “No respectable surgeon in the city of Philadelphia would give his services in a case where any variety of irregular was in attendance, excepting where the emergency was so great that time could not with safety to the patient be allowed for his discharge,” and continues by expressing the belief that the same course is generally pursued among the profession in American cities.

How is it in Boston and vicinity amongst the leading members of the Mass. Medical Society? Do they persistently refuse to meet homœopaths, or hold consultation with them, except in extreme emergencies, or are they so kind-hearted, so unwilling to offer what might seem an affront to a brother physician (unfortunately a homœopathist), or to refuse a father or husband the benefit of their advice to his family physician, as to yield the point?

We know that it is impossible but that mistakes should occur, and that it is not customary for a physician, when called to see another's patient with him, to demand of the attending physician his diploma or certificates of good standing, and hence a man may consult with an irregular of any description through ignorance. But such mistakes can hardly occur if the latter be a person of any celebrity, one who advertises extensively, or one who has been advertised by being published year after year as the President of the Homœopathic Medical Society, or its Secretary, or as at least holding some prominent office in it, and as a petitioner for a homœopathic dispensary and hospital.

What we mean to charge is this, that with such well-known homœopathists the most able physicians, accoucheurs and surgeons of Boston do advise, meet and consult. We cannot, of course, know how often they refuse such invitations, nor say but that *some* always do, if they know *absolutely* the character of the attending physician; it is beyond our power to know the facts excusing such a breach of the obligations imposed upon them by the Mass. Med. Society and American Med. Association; we can only declare that these obligations are not unfrequently broken. Cannot these gentlemen make theory and practice agree? Cannot such laws be rescinded or such practices dropped? Country doctors and provincial members are naturally anxious for “more light” on this subject. Will eminent Boston gentlemen give it us?

Yours.

RADICAL.

VISIT TO THE CAMP OF THE 23D REGIMENT.—We were very much gratified, on Saturday last, by a visit to the camp of the 23d regiment, Col. Kurtz, at Lynnfield. In point of position and condition, the hygienic aspect of the camp was everything that the most fastidious sanitarian could desire. Much credit is due to the military officers, as well as to the Surgeon, Dr. George Derby, and his assistant, Dr. Silas E. Stone, for this state of things. The grounds were entirely free from the slightest trace of anything offensive, and the most perfect neatness everywhere prevailed. The sinks for the men were beyond the reach of any of the senses to a person in camp, and a sentry on duty had orders to arrest any man who used any other place than the sinks for the purposes for which they were intended. A trench in a convenient spot received all the garbage from the cook-houses, which was covered in with earth at frequent intervals to prevent any contamination of the atmosphere. We were particularly interested in seeing the practical operation of the new method of making the tents comfortable, by means of subterranean stoves or ovens, of which we copied a description two or three weeks since. The Captain of Company E, an old California campaigner, and a very worthy patriot and patient of ours, had introduced them in all the tents of his command, and their operation was most satisfactory. It seems the arrangement is not new with the Army of the Potomac, but has been long in use in California among the miners, where it is known as the "California stove." We found the heat generated by this simple contrivance to be of the most genial character. The dampness of the soil undoubtedly tempered it, so that it was remarkably soft and agreeable. We can hardly say too much in favor of this invention, which may be the means of saving many valuable lives. For drying the wet shoes and clothing of the men, or for making tea, it answers an admirable purpose. By it the temperature can be raised to any desired point, and the men can be made as comfortable in the field as in barracks; at the same time the most thorough ventilation is secured by means of oval openings at the top of the tents, through which a current must constantly set by means of the hot air below. A military officer of high rank made an objection to them, that he thought they would make the men tender and more susceptible to the inclemency of the outside weather. But in this he certainly is mistaken. The idea has long been exploded, that in order to toughen men you must try their powers of vitality to the utmost. It is true that the survivors of such a process are likely to be tough, but it is only because their capacity of endurance was enough to carry them through the trial which was fatal to the weaker subjects, who might have been saved by a less severe ordeal. The point is to make the men more comfortable in their tents; if this can be gained by this simple and cheap method, blankets are of comparatively little consequence. We noticed that a thorough draught was secured for the exit flue of the California stove by the simple device of placing two headless barrels one above the other, over the outer opening, and banking up the lower one with earth, so as to form an excellent chimney. We observed, also, that at the outer extremity of the air flue a hole was sunk to a sufficient depth below it, so that no rain could possibly get access to the fire. In conclusion, we would gratefully acknowledge the courtesy of all the officers with whom we came in contact, both military and medical. We feel as-

sured that the 23d will compare favorably with any regiment which the State has yet raised.

PRIVATE MILITARY HOSPITAL.—In the papers of the Sanitary Commission, which we have already noticed, flattering mention is made of a private military hospital recently established in Cincinnati by Dr. William H. Mussey, of that city. In order to carry out his benevolent design, Dr. M. succeeded in obtaining permission from the United States government to occupy the Marine Hospital, a costly edifice, admirably adapted for the plan proposed, and its spacious wards were soon filled with accommodations for the sick. So early as June, according to the report of the Commissioner, nearly fifty sick soldiers had been thrown upon his hospitality. As this is the only military hospital in Cincinnati, much praise is due this distinguished surgeon for his zeal and energy in so effectively executing his humane purpose and lending his valuable professional services to the work. Dr. Mussey has recently been appointed Brigade Surgeon, with the charge of the Military Hospital, and possessing, as he does, talents of a high order and the prestige of a name that will ever adorn the annals of surgery, he cannot fail to gain fresh laurels in the new field upon which he has entered.

VERMONT MEDICAL SOCIETY.—This Society held its annual meeting in the State House, on the 16th and 17th ult. In absence of the President, the meeting was called to order by the Secretary, Dr. McCollom, of Woodstock, and Dr. Stiles, of Windsor, was appointed President *pro tem*. The record of the semi-annual meeting having been read and approved, and a committee appointed to examine candidates for membership, the following gentlemen were elected members:—Drs. Charles S. Downs, Topsham; E. F. Upham, West Randolph; M. J. Hyde, Isle La Motte; C. F. Hawley, Fairfax; J. E. Macomber, Worcester; E. S. Blanchard, Hyde Park; G. W. Hunt, New Haven.

The officers elected for the ensuing year were:—A. T. Woodward, Brandon, *President*; H. S. Brown, St. Johnsbury, *Vice President*; Wm. McCollom, Woodstock, *Recording Secretary*; C. B. Chandler, Montpelier, *Corresponding Secretary*; Charles Clark, Montpelier, *Treasurer*; H. F. Stevens, St. Albans, Joseph Perkins, Castleton, J. N. Stiles, Windsor, *Committee on Printing*; J. N. Stiles, Joseph Perkins, E. Hazen, *Business Committee*; J. N. Stiles, H. S. Brown, *Delegates to Castleton Medical College*; M. Love, Bennington, W. H. H. Richardson, Montpelier, *Delegates to Burlington Medical College*.

Drs. Morgan of Pownal, Chandler of St. Albans, and Richardson of Montpelier, were constituted a Committee to confer with the Executive in reference to the appointment of a Medical Board for the examination of candidates for the office of surgeon in volunteer regiments.

Instruments of new construction were exhibited by Dr. Bradford, of Northfield; also by Dr. Branch, of St. Albans.

Dr. Keith presented a paper on Retention of the Placenta, which elicited much interesting discussion from Drs. Stevens, Woodward, Stiles, Bradford and others.

Dr. Brush read a paper upon Diphtheria, and cases were reported by many of the members. Four or five hours were devoted to the discussion of this disease. Drs. Woodward, Marsh, Keith, Hazen, McCollom, Bradford, and others, participated. Drs. Woodward and

Bradford strongly advocated the use of calomel in this disease, which doctrine was strenuously opposed by nearly every member present.

A Committee was appointed to investigate and report upon this subject at the next semi-annual meeting.

This meeting was one of unusual interest, the attendance greater than has been known for years, and a spirit of investigation exhibited and zeal awakened that will accompany members to their respective fields of practice, and result in much good to the communities upon which are bestowed the labors of this self-denying class of men.

The semi-annual meeting will be held in St. Albans, on Wednesday and Thursday following the commencement of the Medical Colleges, in June next.

NEW YORK OPHTHALMIC SCHOOL AND HOSPITAL.—The Introductory to the tenth course of lectures on Ophthalmic Medicine and Surgery was delivered by Dr. Mark Stephenson, on the 26th of October, at the Hospital, No. 63 Third Avenue, to a large and attentive class of medical pupils and professional gentlemen. The Institution is in a flourishing condition, its beneficiaries now number over *nine thousand*; it is open to the poor from all parts of the United States, every Tuesday, Thursday and Saturday, and clinical instruction is given to students from 1½ to 2½ P. M., on each of the above-named days. The attending surgeons are Drs. M. and M. P. Stephenson, and Dr. J. P. Garrish. Professional gentlemen visiting the city, are invited to visit the Institution, where every attention will be shown them by its attending surgeons.

HEAVY DAMAGES IN A SUIT FOR MAL-PRACTICE.—A case has been lately tried in Chicago, in which an oculist and aurist of that city—Dr. F. A. Caldwell—was, by a verdict of the jury, assessed in damages to the amount of \$10,000. A scar of the left eye, caused, it is said, by the smallpox, was the imperfection which the plaintiff, a female domestic in a hotel, wished removed. The defendant promised to do this in a short time without pain, and with no injury to the right eye. He was paid \$30 in advance. It was alleged that he improperly cut and punctured the left eye, afterwards neglecting to visit her, and causing her to be exposed at his office so that she took cold, the eye became inflamed, and was lost; and that certain inflammatory drops were applied to the right eye, whereby its sight was destroyed. The plaintiff alleged, on his part, that the disease was *staphyloma*; that he intended to reduce the size of the eye so as to insert a glass over it, and did not undertake to restore it to its original condition; and that his failure of success was owing to the patient's own neglect, rather than to his ignorance, mal-practice or neglect. The *Chicago Medical Examiner*, from which we gather the above facts, states that a motion has been made for a new trial.

APPOINTMENTS.—Dr. Alfred Hitchcock, of Fitchburg, has received the appointment of Brigade Surgeon from the President.

Dr. W. M. Lane, of Charlestown, has received and accepted an appointment as surgeon in the Navy, and has joined the blockading fleet.

MEDICAL MISCELLANY.—Dr. Steiner, Professor of Chemistry in the Maryland College of Pharmacy, having removed his residence to Frederick City, has resigned his connection with the College, and Mr. Alfred M. Mayer has been elected to the vacant chair. The lectures will be conducted as heretofore at the College Hall, North Calvert Street, Baltimore.

The Surgeon of one of the Iowa regiments, in Missouri, complains, in the *New York Medical Times*, of the want of suitable ovens in the army for baking bread when on a march. Nothing but the little camp pans is in use, he says, with them,

and the bread baked therein has proved wholly unfit for use. He also complains of the scanty supply of fresh meat and vegetables, in consequence of which the scurvy has already made its appearance among the troops.

At a meeting of the Buffalo Medical and Surgical Association, Professor Rochester reported 137 cases of re-vaccination. More than half the individuals, he stated, were found susceptible of the disease.

Prof. Stephen Smith, of Bellevue Hospital Medical College, New York, is preparing a work on Medical Jurisprudence in its application to the Practice of Medicine, Surgery and Midwifery in the United States, and solicits information from members of the profession in regard to trials for alleged mal-practice, including the notes and charge of the presiding judge in such suits, or the notes of the legal gentlemen engaged.

The Introductory Lectures at the opening of the New York Medical Schools were delivered as follows:—At the College of Physicians and Surgeons, by Prof. T. M. Markoe; at the University Medical College, by Prof. John T. Metcalfe; at the New York Medical College and Charity Hospital, by Prof. C. A. Budd; at the College of Pharmacy, by Prof. Maisch. The proceedings at the opening of the Bellevue Hospital College were noticed last week.

The winter term of lectures in the Medical Department of Lind University, Chicago, commenced on the 14th of October, by an Introductory Lecture from Prof. E. Andrews.

The Rush Medical College, in Chicago, commenced its winter term of lectures on the 16th of October.

The Hartford (Conn.) Hospital, under the care of Dr. Hawley, has gone into operation, although only about one quarter of the building originally planned is yet constructed. There are now 19 males and 11 females under treatment. Eight of the males were soldiers in the Connecticut regiments. Fifty can be accommodated in the building. Funds are needed, as we learn by a Hartford paper, for the completion of the building, and it is hoped that the wealthy men of that city will not long allow this to be said.

The ladies who compose the Board of Managers of the Cincinnati Orphan Asylum have elected a homœopathist to the medical department.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 2d, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	33	32	65
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.1	33.7	67.8
Average corrected to increased population, . . . . .	..	..	75.6
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	1	1	2	2	0	1	0	1

COMMUNICATIONS RECEIVED.—Secretion and Uses of the Bile.

MARRIED.—At Bristol, R. I., 23d ult., Dr. Augustus P. Clarke, Assistant Surgeon in the Harris Brigade Cavalry, U. S., to Miss Mary H. Gray, of B.—At Hamilton, Ill., W. M. Cox, M.D., of Savannah, Iowa, to Eleanor M., daughter of Dr. Charles Choate.—In Worcester, Oct. 15th, Dr. Wm. H. Draper, of Philadelphia, to Miss Elizabeth Waldo Kinnicutt, of the former place.

DIED.—At Shrewsbury, 24th ult., Dr. Amos Parker, of Bolton, 84.—In Lancaster, Pa., Dr. John Miller, in the 69th year of his age.

DEATHS IN BOSTON for the week ending Saturday noon, November 2d, 65. Males, 33—Females, 32.—Accident, 2—asthma, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 3—burns, 1—cancer, 2—cholera infantum, 1—cholera morbus, 1—consumption, 14—convulsions, 3—croup, 1—cyanosis, 1—diarrhœa, 3—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—dysentery, 1—scarlet fever, 2—disease of the heart, 2—infantile disease, 4—intemperance, 2—disease of the kidneys, 1—inflammation of the lungs, 2—marasmus, 3—old age, 2—premature birth, 2—teething, 1—thrush, 1—unknown, 2.

Under 5 years of age, 23—between 5 and 20 years, 4—between 20 and 40 years, 14—between 40 and 60 years, 7—above 60 years, 10. Born in the United States, 43—Ireland, 14—other places, 8.

THE

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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE IX.

GENTLEMEN,—We come next to certain further considerations relative to the digestive organs, viz., the food and drink. The condition of the patient, both as to appetite and power of digestion, and to the immediate necessity for nourishment, differs entirely in acute and chronic diseases. In the severer acute diseases, appetite for solid food is wanting and the power of digestion is suspended, whilst thirst, or at least the capacity of taking and absorbing liquids, and of a partial assimilation of them, continues. It is not essential to the maintenance in the system of the power of recovery that there should be any addition to the stock of solid material. The waste occasioned by the disease is supplied out of the stock previously accumulated. But it is not so with the liquids. These are rapidly consumed, and a constant supply is required, usually greater than in health. Consequently while hunger is absent, thirst is frequently very intense.

In chronic diseases, the state of things in this respect is very different. The appetite is not always impaired. It is sometimes even increased. The digestion and assimilation of food often remain very good. A supply of material to the system is as necessary as in health, since the waste is often as great or even greater. It is therefore desirable to take food. But the appetite and power of digestion, one or both, may be wanting, and this proves an obstacle to the recovery of the patient. Their restoration thus will become an important object in the treatment of a case, which is not so in acute diseases. Indeed, in a great many instances the treatment of chronic diseases is resolved chiefly into the management of the digestive organs as it regards the kind and amount of food and drink, and the adaptation of such means as will restore and keep up the appetite and promote perfect assimilation. In fact, many measures are had recourse to which, although they have no direct operation on the digestive apparatus, owe ultimately their favorable effect to the influence they have in promoting, indirectly, the improvement of the assimilation and nutrition.

Such as air and exercise, changes of climate, travelling, sufficient and comfortable sleep, and a tranquil and cheerful state of mind.

These remarks apply in full force to the strongly-marked cases of each kind. There are many which lie between the two, and the principles of treatment will require modification when applied to these intermediate ones. But these principles may be best illustrated by those cases in which the characteristics of the two classes are most distinct, and it is in these also that they require to be most strictly enforced.

In the strongly-characterized acute cases, water is often the only drink which is tolerated, particularly through the early periods. Even the most unsubstantial liquids may be loathed—such as lemonade, tea, toast-water, &c. In some cases, especially such as have a fatal termination, this continues throughout. The preference of the patient is to be always consulted as to kind, and for the most part as to quantity. The propriety of exceptions to this can only be determined by individual judgment, in view of the peculiarities of each case. Drinks should never be urged which excite disgust, or permitted which induce nausea.

Still, it is on the whole best to give liquids which contain nourishment, when they are tolerated, even if not absolutely desired. The support of the patient is maintained by it. This is effected in two ways—first, by the absorption of nutritious material; and, secondly, by its simple presence in the stomach. This depends upon a principle of wide application in disease of all kinds; viz., that the powers of the system are reinforced by the presence in the stomach of appropriate alimentary matter, independently of its digestion, and previous to any possible assimilation or admission of it into the circulation. A man, faint and exhausted by fasting and labor, is refreshed at once by a cup of tea or coffee, or by the first mouthful of food, and the feeling of strength and even the capacity for exertion is restored. A perfectly empty state of the stomach is usually attended by a sense of exhaustion, and this is relieved, temporarily at least, by the introduction of something which bears to the organ the relation of digestibility, even if the power of digesting it be at the time wanting. Hence, as a rule, whenever nourishment is tolerated, it should be given—and even when water alone is thus tolerated, it is probable that the office it answers is partly dependent upon this same principle.

This influence seems to be exerted even where no digestion or absorption takes place, though usually, it is probable, a sufficient change is produced upon the aliment, either before or after its absorption, to assimilate it in some degree to the circulating fluid, as we see in the case of the absorption of many liquids injected as nourishment into the rectum. The more solid portions, however, of the gruels, broths, &c., which are taken in the earlier stages of acute disease, it is not likely are at all digested, but are passed on through the canal. Later, even before actual improve-

ment has begun, the increasing needs of the system excite a greater effort for assimilation, and previous to convalescence a considerable amount of nourishment may be appropriated.

Different cases differ almost indefinitely in this respect, and although generally the more aggravated are those in which assimilation is most completely abolished, yet there are some patients who will digest considerable substantial nourishment throughout a very severe disease, and others who will pass through a very mild one on nothing but water. No one patient's capacity is ever to be the measure of any other one. We are to apply the general principle that every person in sickness is to be supplied with as much nourishment and of such a kind as he can bear without any distinct annoyance or oppression, but the measure is in each case to be determined by the actual observation of the case itself.

As nearly as any rule can be laid down as a guide to such observation, it may be stated that, for an adult of average condition, in an acute disease, four ounces of common nourishing liquids may be offered every four hours; the whole to be taken or not, as the patient is disposed—more drinks being given in the intervals; but the quantity and the periods, and also the substantiality of these liquids, must be accommodated to different persons and to different periods of disease.

There is one caution to be insisted on. If the above view of the manner in which nourishment in acute diseases is useful, be correct, a considerable quantity of the actual materials of the food must be left behind to be carried onward through the intestines. It is consequently of importance what these materials are. A liquid may be well borne in the stomach, and yet when its liquid parts are absorbed, what is left may either from its texture, its bulk, or from a liability to chemical changes, or from some less assignable cause, produce annoyance in the canal. This will be different in different diseases and in different persons. To illustrate by a single example. Common gruel, one of the mildest of the articles of sick diet, will sometimes, when its residuum has passed into the large intestines, become sour there, and produce irritation and flatus. I have known this take place to such an extent that the matters discharged were of as intense an acid as liquids of the same kind often are when they are thrown up by vomiting from the stomach. This consideration will explain some of the minor effects of food, and have already been adverted to in speaking of the management of the large intestines.

Food properly solid, such as bread and meat, are seldom admissible in that degree of acute disease to which these remarks are intended specially to apply. The reducing process of digestion, as it is termed by Dr. Prout, seems to be more uniformly and entirely suspended than the converting—that is to say, the preparatory process by which the texture of food is broken down and reduced to a thin liquid, is more interfered with than that by which

the mass thus prepared is vitalized and rendered capable of being applied to the nutrition of the tissues. Hence solid food, if not reduced, or imperfectly reduced, passes on in a solid form, whilst liquid food is more likely to be assimilated, or, if not assimilated and absorbed, passes on in a form less offensive to the organs with which it comes in contact. The reverse of this often happens in a state of health, in chronic diseases, and during convalescence, and the relative completeness or difficulty with which these processes are performed is probably one of the causes of the immense variety which we meet with in the working of the digestive organs in different persons, different states of disease and with different kinds of food.

In many cases, when digestion becomes active in the decline of disease and during convalescence, solid food is better borne than liquid, more rapidly recruits the strength, and is fæcalized and discharged in a better condition. But it is not always so. If the reducing process have been imperfectly performed, the residuary mass of solid food seems incapable of that proper fæcal change which renders it agreeable to the large intestines, and it produces either pain or some of those other disturbances which were formerly pointed out. This is seen in the most marked manner in cases where the intestines themselves have been inflamed, as in dysentery or colitis, or cholera infantum. In some cases of dysentery, for example, it becomes necessary, from this consideration, to confine the patient for a long time to food entirely liquid, the tenderness of the parts being such that even a few grains of rice or small pieces of bread excite severe pain. Such cases it is true are exceptional, but they do occur, and they serve to illustrate the minuteness with which in extreme cases it may become necessary to watch and regulate the diet of patients. Generally a very moderate amount of watchfulness is sufficient; but when difficulties arise, their causes and the manner of obviating them are to be determined by taking into view the circumstances which have been pointed out.

The conditions that are to govern the regulation of the diet are so multifarious that it is a matter of extreme difficulty to state them intelligibly or to give their due weight to each. The appetite is a very important one among them, and is always to be regarded as to the kind of food; much less as to its quantity. Its full satisfaction is not perfectly safe in any period of acute diseases. Yet a hungry patient is seldom to be denied something, and of the kind he desires. It is often astonishing to observe, when the fancy is strongly fixed upon some particular article, how well it will be borne and digested, even when it is one that would seem on ordinary principles to be one of the most improper. This is especially noticed when convalescence is fairly established. Even through the whole course of some acute cases, however, the appetite for solid food, and, with it its digestion, remains, and with

great caution may be indulged. Thus in scarlet fever, for example, I have known children otherwise very sick, take their usual food throughout, and without obvious injury.

There is no article which in cases of doubt, where the patient demands food in any stage of acute disease, can be so safely permitted as milk. There is, to be sure, a singular prejudice against its use, and it is regarded by most of those in the common care of the sick as one of the most unsuitable kinds of nourishment. This prejudice is entirely without foundation, and it is rarely, where it is desired and relished, that milk may not be administered in some quantity. The only real foundation for this impression is found in the fact that in certain constitutions milk is found to disagree, like many other of the most innocent and digestible articles, and that its curd is sometimes rejected in a condensed and hardened mass. But upon the whole, there is hardly any form of food equally substantial and nutritious, of which the residuum, when not digested, is passed on to the intestines, is received and fæcalized, with so little labor and irritation. We see how it is with nursing infants, in whom the coagulum, when greater quantities are taken than the system requires, is carried into the large intestines only partially digested, and yet is received and transmitted as easily as the ordinary fæces. Here it is true that the milk taken is more peculiarly adapted by nature to the system of the child, than that taken by adults; but it is also true that the milk of the several animals used by man, resembles the natural food more closely in its composition and adaptation to the wants of the human system than any other known substances. Exceptions there are, growing out of constitution and the circumstances of individual cases; but as a general rule of dietetics, I know of none more uniform.

There has always been a strange perversity of judgment among mankind as to the nature and requirements of the state of sickness. It has been looked upon as a state specifically different from health, in which whatever was most agreeable, refreshing and healthful to the well man, was to be denied to the sick. Patients have been immured in hot, close, ill-ventilated rooms, and confined to beds surrounded with close-drawn curtains; light and air have been excluded; instead of substituting the pure breath of heaven for the offensive exhalations of disease, it has been sought to hide them from the sense by the fumes of vinegar, of rum, of aromatic drugs, whilst chemical ingenuity has been exhausted for means to neutralize them by I know not what number of offensive and very probably injurious gases; instead of pure cold water, the parched and feverish tongue has been moistened by sparing quantities of a thousand infusions and other preparations, of which the best that could be said was that they were not directly hurtful; it has been supposed that the only safe means of cleanliness was sponging the hands and face from time to time with vinegar or rum, and that a frequent change of raiment or bedding was to expose the patient

to the pernicious influences of the air. Much of all this has long passed away. Vast improvements have doubtless been going on in all these respects for many years, as enlightened views have prevailed more and more among physicians, and an increasing intelligence has gradually rendered mankind willing to accede to the changes that science and experience have dictated. The superstitions of the sick chamber, however, yet linger about it with a tenacity only equalled by that with which other superstitions are cherished, chiefly, it is true, among the ignorant, but only too often among the educated and intelligent.

Another point of considerable importance and much delicacy in the management of these diseases, is the proper use of stimulants. The question with regard to them varies very much in different persons and different stages of disease. For the most part we may be safely governed as to their exhibition by the appetite and disposition of the patient, and by their effect upon his sensations and his condition when they have been taken. There is hardly any case where there is a fair decided longing for cordials, that they may not be at least safely admitted upon trial. If it is found that they produce heat, flushing, thirst and restlessness, they can be suspended, and their unfavorable effect is usually very transient. In the first stages of many cases, where a tendency to sensations of exhaustion and prostration show themselves early, especially in typhoid fever, a moderately-diluted stimulant, a light wine, ale or cider, if the patient distinctly desire and relish it, is found beneficial, or at least innocent, and I have often known them taken through the whole course of such a case. Still, the principal use of stimulants is found in the closing stage of disease and during convalescence, and it is by no means intended to imply that they are of universal or even general necessity. Most patients whose health has been good, and especially children, will pass through disease and recover perfectly well without them. It is best that they should. It is best, where we can, to trust to the natural course of events, and depend upon the return of the healthy power of digesting and appropriating suitable nourishment. Still, where there is a deficiency in this; where there is a want of restorative power, with exhaustion and prostration; and especially when matters come, as it were, to a stand, a judicious use of such stimulants as are suggested by, or are agreeable to, the natural appetite, will be often found to impart new vigor and give a decided forward impulse.

But in admitting the use of stimulants, we are not to confound a true and natural impulse for them, suggested by the natural want and appetite of the system, with the idea often existing in the sick, and suggested to them by the well, that stimulants are in themselves capable of giving strength, and are to be depended on for this purpose, whenever a patient is weak, independently of any natural appetency for them. All states of sensible weakness are

not appropriate states for their use. They may have no tendency to relieve it; on the contrary, they may increase it, especially early in disease. It is only where there is a decided natural craving, or at least where the idea, when suggested, is naturally agreeable, and where also the effect is salutary, that stimulants and cordials are to be generally indulged.

There are, however, certain states presented in disease in which we are called on to depart from this general principle, and interfere, with the free use of stimulants, for a different purpose. In these cases death is imminently threatened, and our purpose is to keep up life, to prevent death, so far as this is possible by artificial means, to gain time for the system to rally and carry through its effort for the natural removal of the disease.

Two cases of this sort present themselves; the most illustrative ones are found in typhoid fever, though they may be met with in any acute disease. In one case the patient has been reduced by the natural course of things to so very low a state of exhaustion, that it seems doubtful if there is sufficient vitality to keep up the struggle, till the disease has time to subside by its own limitation. The point here is to prevent death till the power of recovery comes into the ascendant, and turns the scale in favor of health. It is doubtful how much effect can be produced in such cases, but if at all, it must depend upon a steadily-continued and frequent use of so much stimulus, wine, brandy, &c., as will raise up from time to time the flagging functions, and keep them in activity till they are able to gain upon the exhausting influence of disease.

The other case is a more hopeful one. The patient has been reduced to perhaps an equal state of exhaustion by some suddenly depressing cause, such as a loss of blood from the nose or bowels, in typhoid, or the uterus after labor. Here, though the actual exhaustion is at the moment as great, it has been brought about through a different process. There is a reserved power, which, if time can be gained, the system may fall back upon, reaction become established, and recovery take place. Here also the hope depends upon husbanding the vital power by fresh air, the horizontal position with the head somewhat depressed below the level of the body, and by the continued administration of vinous and alcoholic stimulants.

It is desirable always, in managing patients who are in pressing danger of dying from acute disease, to keep distinctly in mind the precise nature of the cause upon which this danger depends. Men do not die from weakness, in the common understanding of the term, i. e. from an annihilation of the power of recovery. This is not often entirely lost as long as life continues, since we observe that an effort at healing, as in cuts, wounds, blisters, leech-bites, &c., is going on very late. Men die because this power is prevented from successful exertion by the conditions of the disease. Thus, a child dies of croup, not because the power of re-

covery is exhausted, but because the obstruction offered to respiration does not afford time for its available exercise. Remove this obstruction by opening the trachea, and time is afforded for the natural cure. A person who has taken laudanum does not directly die from the poison, but from its interference with a function which is immediately necessary to life. Prevent death from this by artificial respiration, strong coffee, forced muscular exertion, the infliction of pain and other measures, and the poison will be eliminated by a natural process, and the patient will recover—for the process of elimination is going on up to the moment of death. It is upon the same general principle that in the cases just referred to, we are to seek to prevent death, in the hope that time may be afforded for a corresponding removal of the cause by which it is brought about.

There is one class of cases of acute disease, and by much the largest, in which we have good reason to judge that there is no danger—another, but a very small one, in which we have equally good reason to judge there is no hope. There is another class, lying between these two, in which there is both much to hope and much to fear. These classes actually exist, though we cannot always determine where each individual case is to be placed. All should, therefore, be submitted to the best management, but it is in the last class that the mode of treatment in itself is of the most importance, and it is in such cases that recovery often depends upon it. Still we are not to rely with any great confidence upon our power of preventing death in the last extremity. The actual saving of life at this stage is probably a rare occurrence. If the scale is turned in favor of life, it is rather done by the measures steadily used through the whole course of the case, than by those adopted in the last extremity. The general principle upon which these are to be pursued has been more than once illustrated, and the due regulation of the diet, which has just been considered, is one of the most important means in carrying it out. Still, there is another, a sufficient supply of air of proper quality for respiration, that is even more important, and yet it is less considered, or at any rate the manner in which it is enforced is less perfectly understood. It is not too much to say, a deficient ventilation has more to do with the mortality of acute diseases than any other single circumstance in their management.

No doubt the necessity of sufficient ventilation is now universally acknowledged, but the difficulty is in the appreciation among mankind of what sufficient ventilation is. The more freely and constantly the patient with acute disease is entirely exposed to the open air of heaven, the more advantageously does he go through with his malady. No fact in therapeutics is better established than this.* But we know how far short of this is the system on

* The recent admirable work of Miss Nightingale illustrates this, and many other points in the management of the sick, more perfectly than any other book. It should be the guide of every attendant on the sick, and may be consulted with advantage and instruction by every practitioner.

which these cases are treated, and what trivial objections are constantly admitted as sufficient. For how great a part of the year is it deemed sufficient that the sick-room be cautiously ventilated for a short period once a day; how almost universally is it judged that a cloudy sky, a fall of rain, a damp and foggy atmosphere, an east wind, are necessary signals for closing the windows and immuring the patient amid the emanations of his own disease. It is impossible to dwell upon all the details of this branch of treatment, but it may be summarily said, that in any severe case of acute disease it is necessary, in order to the best welfare of the patient, that he should not only have an abundance of fresh and pure air about him, but that he should be constantly receiving a new supply, so that the same portion should never be twice passed through the process of respiration. This is what should be aimed at. No doubt it is in strictness ordinarily impracticable, but the more nearly it can be approached, the better is the patient's chance.

[To be continued.]

CASE OF POLYPUS OF THE TRACHEA.

[Read before the Boston Society for Medical Improvement, Sept. 9th, 1861, by W. C. B. FIFIELD, M.D., of Harrison Square, Mass., and communicated for the Boston Medical and Surgical Journal.]

I FIRST saw Mrs. Marietta Hollis at her confinement, in the year 1857. She was then a robust girl, between 15 and 16 years old. Her father was a confirmed asthmatic; her own health perfectly good. May 18th, 1859, I was called in the night to attend her in a violent attack of asthmatic breathing. Emetics were administered, but complete relief was only obtained by inhalation of sulphuric ether. A profuse expectoration of heavy mucus, lasting for some days, terminated the attack. Attacks continued to occur, increasing in severity, but always relieved by the inhalation of ether, until January, 1860, when the free exhibition of it was attended with such well-marked symptoms of hysteria, that its use was abandoned and never again resumed. The asthmatic paroxysms in this young person were remarkably severe; often a fortnight would elapse before she dared to enter a bed, or even to lie down a single moment, she in the mean time working constantly on shoes to support herself and child. She was animated with a courage such as I have never seen equalled. After the abandonment of ether, the greatest relief was gained from the use of the lobelia inflata, in the form of tincture, as recommended by Dr. Eberle, in his "Practice of Medicine." The usual dose was two teaspoonfuls, at about twenty minutes interval between each spoonful.

In March, 1860, she had an attack of asthmatic breathing, with cough and expectoration, which lasted until Aug. 20th. So great was the difficulty of breathing, so large the amount of the expectoration, and so acute the pleuritic stitch accompanying the cough, that I could scarcely doubt the existence of tubercles. The stetho-

scope, however, showed only great bronchial râles every where present in the chest. During this whole period, from March till August, she never lay down in bed. Propped up with chairs and pillows, she would drop asleep, until her slumber becoming profound, she would fall from the bed to the floor. Getting up, she would again arrange her supports, again perhaps to fall. She was also distressed by the urine being ejected by the violence of the cough; her clothes being always wet, and the urinous odor making her disagreeable to her friends. About the 20th of August, 1860, she had a plentiful eruption of measles. After this she rapidly grew better, and remained in tolerable health through the winter and spring, the paroxysms being rather mild and rare. The incontinence was less, but still took place when the cough was more than ordinarily severe. She was in tolerably good flesh, but changed from her original tint of rude health to pallor.

About the 1st of July, 1861, she was compelled by poverty to separate herself from her only child. This grief told heavily on her. Shortly after this I saw her. She was then very pale; some dyspnœa; feet and ankles swollen. Auscultation revealed besides the usual râles, a soft bellows-murmur of the heart, and a well-marked *bruit de diable*, or musical murmur in the neck. Two days afterwards I was called to see her in a fit of hysteria, resulting from an attempt to work, and a conversation regarding her child. Three days after this she had an attack of dyspnœa, accompanied with vomiting, from which no relief was obtained. For four days and nights she sat with her forehead resting on the back of a chair—she would allow no pillow or other covering upon it. The weather was intensely hot, and she for the first time expressed an ardent desire for death. It came towards the evening of, I think, the 14th of July.

Autopsy, the day but one following. Body well nourished. Heart healthy. Lungs perfectly free from any tubercular deposit. Right lung pale and crepitant. Left lung of a darker color, moderately congested. No appearance of emphysema in either. The lungs being removed from the body, I divided the trachea to the bifurcation. Cutting into the right bronchus, the floor presented some superficial erosions. The smaller divisions were filled with semi-purulent mucus. Turning my attention to the left bronchus, I could not discover its opening. Looking more closely, I found it perfectly covered by a firm, rosy polypus the size of a small grape. The pedicle being attached to the trachea, at the mouth of the bronchus, it had acted as a ball-valve, allowing expiration, but forbidding inspiration. No other polypi were seen.

I have consulted many authors, including Gibb on the Throat and Air Passages, and although reference is made to polypi of the larynx, I find no allusion to polypus of the trachea.

The specimen was transmitted to Dr. ELLIS, who has furnished the following description of the microscopical appearances:—

"The growth was quite soft, of a whitish color, and appeared to separate into many minute lobules, very loosely coherent. On microscopic examination, however, nothing like lobular structure was seen. It appeared to be composed of small granular corpuscles, each about the size of a pus corpuscle."

THREE CASES OF POISONING BY STRAMONIUM.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Dr. Buckingham's case of poisoning by stramonium (reported in your JOURNAL of Oct. 31st), reminds me of some cases which I had about seven years ago; and as the symptoms in my cases differed considerably from those in the case reported, a brief description of them may be of interest.

I was called to see the patients—an Irish woman aged about 60, and two children, aged 3 and 5 years respectively—about 10, P. M., and on inquiry learned that the woman had at noon cooked a quantity of young stramonium plants—a part of the "mess" was shown me—for *greens*, and that all three had eaten of them. The time is so long since, that I cannot recall all of the symptoms, but I remember distinctly that there was vomiting, cold clammy perspiration, coldness of the extremities; small, infrequent, feeble, almost indistinct pulse; great pain in the region of the stomach and bowels; thirst, &c. I immediately gave tartrate of antimony with warm drinks, which acted promptly and efficiently, bringing up considerable quantities of the partially-digested "greens," the nature of which was plainly determined by the smell alone. The emetic was followed by stimulants, which in the course of about two hours caused a reaction in the children (who ultimately recovered), but produced no apparent effect on the woman, who died the next morning, about 7 o'clock, in a state of collapse greatly resembling that of cholera.

One peculiarity in these cases was the fact of the poison remaining undigested, or but partially digested, for so long a time—at least *nine hours*—after eating it. I learned, however, that a physician had been called three hours before I saw the patients, and that he had given Dover's powder (!) to them all, and this may in part account for it.

I am aware that I have but imperfectly sketched these cases, but the length of time which has elapsed since I saw them, must be my excuse.

Yours truly,

J. O. HARRIS.

Ottawa, Ill., Nov. 5, 1861.

Army Medical Intelligence.

GENERAL MARTINDALE'S DIVISION—EXTRACTS FROM A LETTER FROM
BRIGADE SURGEON GEORGE H. LYMAN.

To the Editors of the Boston Medical and Surgical Journal.

THE following interesting and important facts relative to the sanitary condition of one of the Divisions composing the Army of the Potomac, I am authorized to offer to you for publication in the JOURNAL. They are abstracted from a letter to me from Brigade Surgeon George H. Lyman, now in camp, near Hall's Hill, Va., and actively engaged in the arduous and responsible duties of his office. Dr. Lyman is attached to General Martindale's Division, and has an almost unlimited field of observation in the departments of camp-hygiene and military surgical details. Those who know his energy and capability will feel sure that he will be found equal to the task imposed upon him, and will hope to hear from him again upon topics of such absorbing interest. I have taken the liberty to suggest to Dr. L. that his communications would be most acceptable to your pages.

M.

Immediately on joining his Brigade, Dr. Lyman made, in company with the General in command, a thorough inspection of the camps, and reported thereupon, at length. To quote his own language :—"They (the camps) were bad enough—dirty kitchens and dirty tents, and camp-police generally—in some instances entirely—overlooked." The season is next referred to, in regard to its salubrity. Dr. Lyman says :—"This is said to be an unusually healthy season by resident practitioners ; otherwise the neglect of the most obvious sanitary rules would doubtless have produced its usual results. The Division were encamped during September at Fort Corcoran and its vicinity, opposite Georgetown, one of the most unhealthy localities near Washington. Few severe cases of malarial disease occurred ; but nearly all the sickness was evidently more or less modified by the poison—as shown in ordinary colds, over-fatigue, rheumatic affections, &c. ; by the biliary disturbance and torpor of the portal circulation generally. One regiment, encamped in the open ground, nearly half a mile from the river, upon the top of the hill, had little or no disease comparatively. Since our removal some miles into the interior, this same regiment has had so large a number of men ill with malarial disease, generally bilious remittent, as to oblige the opening of a special hospital for them. And in fact, throughout the whole division, the sickness can be traced almost certainly to the exposure in an unhealthy locality, the previous month. Almost all the diseases now are of a mild typhoid type, not unlike our *slow fever*, with the addition of the biliary disturbance. The initiatory headache, so far as I have observed, is greatly more severe. During the month of September, out of a force, in the First Brigade, of 2882 men, 692 came under medical hands. Of these there were no deaths ; and on the first of October, 174 remained on the sick list. During the month of October, out of a force of 3,944 men, 739 were treated ; 126 of whom suffered from simple diarrhœa only ; and about 20, each, had common continued, quotidian intermittent, remittent, and typhoid fever. The first of November the reports give me but 91 on the sick list, and but three deaths for the month—a very

favorable exhibit certainly, when we consider the extreme carelessness which is shown in enlisting unhealthy men. Blindness of one eye is not so bad, if the remaining one is good; but when men are allowed to come on here with varix, varicocele, hernia, epilepsy (of which last I have discharged two victims this morning), lame hips and cavernous lungs—the examining surgeon should have them charged to his account. With some exceptions, the examiners from our own State have done their duty well, and the result is manifest in the sick reports of our regiments.

“The 18th and 22d regiments, who are in our division, are models of cleanliness and health; and the 9th, although laboring under many disadvantages for want of tents to keep them comfortable, are as efficient a body of men, so far as health is concerned, as can be found this side the Potomac. The thoroughness with which our regiments are equipped can only be appreciated by one who, being upon the ground, is able to compare them with the regiments from some other States. As to tents and blankets, however, I have seen none at all comparable to those furnished by the U. S. The tents brought by the 22d Massachusetts Regiment are altogether too thin; as one would soon discover if obliged to sleep under them some of these cold nights, and particularly on such a night as this, after a day of furious wind and rain. The sick report of the next three days will show the result.

“In the company of Sharpshooters attached to the last-named regiment, there is a tent which promises to excel anything yet invented. When properly pitched, the cords may remain untouched for an indefinite period, the tension upon them being regulated by a double screw inside, which raises or lowers the poles, while at either end a hooded ventilator regulates, at the pleasure of the occupant, the inner atmosphere.”

Dr. Lyman refers, towards the last of his communication, to the importance and efficiency of quinia as a prophylactic against malarial disease. He says:—“There is no question of its value. I am the only one of the three or four staffs who has not been more or less affected by malarial influences, and I attribute it solely to having taken, from the beginning, two or three grains of quinine daily, omitting occasionally for a few days at a time. I have yet to learn of any instance where the same result has not followed the same means.”

In addition to the medical supervision of his own Brigade, Dr. Lyman has recently been appointed Acting Medical Director of the whole Division of three Brigades, with the unattached cavalry and artillery companies, comprising some 13,000 men in all. It may be added that General Martindale's Division is said to be surpassed by no other in drill and discipline.

CAMERON REGIMENT DRAGOONS—LETTER FROM SURGEON JAMES BRYAN.

To the Editors of the Boston Medical and Surgical Journal.

HAVING entered the service of the United States as Surgeon to one of our cavalry regiments, it has occurred to me that a few observations on camp life, camp diseases, gun-shot and other wounds, might interest some of your numerous readers. My experience extends only over the period of three months, including August, September and October—summer and autumnal months.

The regiment, originally composed of ten companies, consists now

of twelve; it is a volunteer regiment, and has been drawn entirely from the State of Pennsylvania. A large proportion of the men are from country districts, and the rest are from the city of Philadelphia. We have them of all ages, from 16 to 60, and from most of the occupations of life. We have a few officers and men who have seen service in the regular Army. The change of circumstances of a thousand or twelve hundred men from the position of civilians to that of volunteers or soldiers, was very radical, and produced necessarily in itself very curious effects; some of which I will notice under the head of "Camp Life."

The form of tent adopted by our regiment, is the "wall tent," which presents the appearance of a small house; the front and back uprights, about $8\frac{1}{2}$ feet high, are connected by a transverse pole of about 11 feet in length. The tent is stretched over these and tied on each side, by means of ropes, to pins driven in the ground; over this is stretched a species of awning, called the "fly," which forms the roof, and gives a double protection against rains and storms. This tent is used by the officers (commissioned), of whom we have, of course, between forty and fifty. The Colonel and each of the Staff Officers has two of these tents, placed end to end; the Field Officers have each one tent. The men's tents have each two uprights about 7 feet high, surmounted by a transverse pole about 6 feet long; the tent cloth is stretched over this, and covers an area of about 36 cubic feet. The tent is closed all round, except an opening in the front, which serves as a door. Six men occupy this tent; this makes close quarters, and in cold weather the ventilation is very imperfect. These tents are placed about three feet apart laterally; and with cavalry, about 40 feet between the rows, affording space for picketing the horses. The hospital, sutler and quartermaster's tents are large wall tents.

The standard sleeping accommodations for officers and men, in the summer season, are a blanket and the ground. These are improved by additional blankets and straw or hay as the weather grows colder. The officers, of course, add camp mattresses, small iron bedsteads, or cots, to their accommodations. These latter, in my experience, generally present one difficulty; they are too narrow, and sometimes too short. There is little difficulty during the summer months in keeping the body comfortably warm; most of the men preferring the bare ground, with a blanket, to anything else, even during a drenching rain.

One curious phenomenon connected with this subject is the facility with which most men adapt themselves to their new circumstances. The delicate dandy of yesterday becomes to-day the rough and blustering soldier; the shy mechanic soon becomes the dashing dragoon, and the puny boy smokes his pipe and cigars, drinks lager (when he can get it), and in regimentals, a world too wide, struts about, aping the characteristics of his fellows. The change in diet, from tea and toast, and beef-steak, to black coffee and dry bread, is borne with laughing fortitude; and so on, to the end of the chapter. This facility of adaptation, however, applies chiefly to the mental and moral faculties; the physical, and especially the digestive functions, are very apt to be deranged by the suddenness and completeness of the change. A very common condition of the new soldier is constipation, with its accompanying nausea and headache. This is followed in a few days by a diarrhoea more or less severe, which in the fall months

is very apt to run on to dysentery. This condition—alternate constipation and diarrhœa—is the normal or usual one of many persons living in camp.

I have observed in private practice, in Philadelphia, that diarrhœas set in about the 20th of August, dysenteries about the 20th of September, and malarious complications, as bilious fever, &c., about the 20th of October. An approximation to this order of things takes place in camp, as dysenteries and intermittents are more common since the 20th of October, than previously. The typhoid fever increases, as the cold weather advances.

The young soldier, while he is mentally pliable, and adapts himself to the regulations of the camp, is strongly tempted, by the craving of his stomach, to change the uniformity of his diet by seeking something more palatable and more varied. Hence, in the absence of a more agreeable diet, he seeks, by the use of intoxicating drinks, to blunt his sensibilities and his cravings. Intoxication appears to be the great bane of camp life, to be controlled or repressed only by strict military discipline. General McClellan was aware of this when he issued the order forbidding the sale of intoxicating liquors in camps. The appetite for them might be very much diminished, however, by having the soldiers supplied with a sufficiency of fresh food, dried fruit, and condiments, such as milk, fresh bread and butter, dried apples, pears, and plums, with a sufficiency of mustard, pepper, pickles, &c. Fresh apples would be a great luxury and benefit, assisting to prevent the scurvy and typhoid fever. Mustard, pepper, and other condiments, except salt, of which there is necessarily too much, would be of great use. Many will say that these are luxuries for soldiers; so they are, but they are quite accessible to the volunteers. The government supplies its soldiers bountifully with food, but in no great variety. The rations dealt out are considerably more than the men on an average can consume. The surplus might be exchanged, with great advantage, for the articles above enumerated, and many others. This could be done by the men themselves, or by the quartermasters of the companies. If sutlers were required, by law, to supply these and other necessities, instead of the indigestible pies and intoxicating drinks which some of them do sell, they would reap a fair profit, and would be a great blessing to the soldiers, particularly the volunteers. Whereas it is now notorious that they monopolize the business of the regiment in this direction, and confine their supplies to a few very profitable, but very destructive articles. For this the soldier has no redress; he cannot pass beyond the lines of his camp without special permission, and in an enemy's country this permission will do him no good.

As a general rule, the soldier, and particularly the cavalry soldier, in camp, has enough of physical exercise; he has his early and late roll-call—morning and afternoon drills—breakfast, dinner and supper call—calls to feed and water his horse, besides long and tiresome dress-parades; to say nothing of guard and picket duty, scouting duty, taking care of his accoutrements, harness, clothes, &c. &c. The truth is, a volunteer is more likely to be over, than under, worked. The exercise on horseback, especially on rough horses, is found to be intolerable to those who are predisposed to convulsions, consumption, disease of the liver or kidneys, hernia, varicocele, hydrocele, piles, varices, or ulcers

of the legs. It in fact requires a pretty strong and sound man to make a good dragoon.

Diseases of Camp Life.—The ordinary diseases of camp life are diarrhœa, dysentery, constipation, rheumatism, intermittent, remittent, bilious, typhoid and typhus fevers. The occurrence of measles, small-pox, and other eruptive and contagious diseases, is due to outside causes, not necessarily connected with camp life. The first named diseases, with a few more, are sure to be found in camps.

Diarrhœa.—This disease, as has already been stated, is generally preceded by several days' constipation of the bowels, and in the recently enlisted volunteer is usually of a mild character. Pain in the region of the stomach and umbilicus gradually extends down to the colon and rectum. The discharges, at first more or less solid, become afterwards fluid, mucoid, watery or bilious, accompanied not unfrequently with considerable tenesmus. The abdominal pains cease with the occurrence of tenesmus, and this again terminates perhaps at the end of two or three days from the onset of the disease. The patient is thus restored to health without medical interference, for the time being. In other cases, pains are more severe, continue longer, discharges are more frequent and exhausting, the patient becomes debilitated, and instead of gaining, loses his appetite, and demands medical assistance. In this instance, the use of a calomel or blue pill cathartic, repeated or not, according to the condition of the tongue, and followed by a dose of castor oil and laudanum, or other laxative, will generally result in restoring the patient to his ordinary health. The exceptional cases (*always with a clean tongue*) will require the administration of tannin, lead, or some other astringent, or perhaps an opiate. We are told that Dr. Tripler, Medical Director of the Army of the Potomac, recommends the use of a solution of the sulphate of magnesia and tartar emetic, in these and similar, but more severe, cases. We have found the treatment, where we have resorted to it, a very good one.

Dysentery.—Where the discharges, as they frequently do, especially as autumn approaches, become bloody, and assume the characteristics of dysentery, the prostration is greater, pulse becomes small and wiry, the skin cold and clammy, and the general debility much more marked. Distinction must here be made between the disease itself, uncomplicated, and more or less local, and that in which it is complicated with, or caused by, a typhoid condition of the system. In the first instance, the disease may be frequently arrested by a simple astringent, provided the tongue be clean. In the second, pretty free purgation, as above directed for diarrhœa, until the tongue is cleaned, will be indicated. In some cases this may be followed by the use of tonics and stimulants. Where the symptoms are more than these, and the typhoid condition more marked, the tongue becoming black and cracked, the abdominal parietes sinking down, with the appearance of petechial specks or blotches, &c. &c., the case runs on to typhoid fever.

My sheet is covered, and I must close.

Respectfully yours,

JAMES BRYAN,
Surgeon Cameron Dragoons, Penn. Vol.

Camp Griffin, November 6th, 1861.

THE following intelligence from the seat of war has been received during the week.

To the Surgeon General. { HEADQUARTERS 22D REG'T, MASS. VOL.,
HALL'S HILL, NOV. 5th, 1861.

DEAR SIR,—It is now three weeks last Sabbath since our arrival at this place, during which time the affairs of our encampment have moved on favorably and agreeably.

We have up to this morning's report 7 in hospital and 22 in quarters, a very perceptible increase since the storm, which was a very severe one here for us, situated as we are on the summit of quite a rise of ground. The soil and subsoil being almost impervious to wet, it is retained.

Our monthly report, starting from the time of our arrival up to the first of November, shows a striking contrast of small ratio when compared with the Maine 2d and 18th Mass., the former showing a ratio of over 300 to the thousand, the latter something like 40, while we report only 15.4 to the thousand.

On our arrival we took possession of this ground, vacated, I think, by the Mass. 9th, and found it in bad condition, but by constant pains, and strict hygienic discipline, we have succeeded in arranging an encampment which is excelled by no one of our neighbors in beauty or cleanliness. Of course there can be still greater improvements, and we strive daily for their accomplishment.

On the whole, I take pleasure in saying that the 22d regiment of Massachusetts stands to-day in this Division as inferior to none, as regards health, morals and men of worth, and I shall endeavor to see to it, as far as it concerns my official capacity, that it shall retain a name in every respect worthy of its Colonel, who has now left us, but whose influence and good wishes we still hope to retain. My health is good, better than when I left Massachusetts. I am pleased with our officers, and we are contented and happy. For my own part, I have not one wish or desire to return till this most atrocious rebellion and savage warfare is put down.

Very respectfully, your ob't serv't, E. L. WARREN,
Surgeon 22d Regiment Mass. Vol.

P. S.—I should have remarked that we have had no deaths among us; none sent to General Hospital; no one particular type of disease. There have been a few slight cases of continued fever, with any number of colds, and a few cases of diarrhoea—from the effects of the water, I judge.

Respectfully yours, E. L. W.

DR. BAXTER, Acting Brigade Surgeon of the 1st Massachusetts Brigade, writes that the health of the 12th regiment is good, "with ten in hospital, several cases of which are typhoid fever. Every fever at this period assumes a typhoid character; and a remittent or intermittent which can usually be broken up, will go along for several weeks, with red and glossy tongue."

PERIOD FOR PRIMARY AMPUTATION IN GUN-SHOT WOUNDS.—Drs. Tripler, Gross, and Hamilton, in their works on Military Surgery, when treating of amputation, are agreed in advising the primary operation. Tripler recommends the adoption of the flap operation in the arm and thigh, but prefers the circular for the forearm and leg, where time is of great importance. Hamilton advises the flap operation. Dr. Scriver, the Surgeon-General of the French army in the Crimea, makes but one exception to the rule of primitive operation, and that is in the operation at the hip-joint.—*Med. and Sur. Reporter*,

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 14, 1861.

DR. HOLMES'S INTRODUCTORY LECTURE.—The introductory lecture of the course before the Harvard Medical School was delivered on Wednesday last by Prof. O. W. Holmes. The discourse was all that could have been expected from its brilliant and imaginative author. Glancing back at the past twelve years of his term of service, he paid a feeling and merited tribute to each of the gentlemen who had acted during that period as his demonstrators in the department of anatomy, aptly referring to the peculiar merits of each, and rendering to them deserved honor. He then took a rapid survey of the domain of medical science, beginning with his own special department. After showing that descriptive anatomy had long been a nearly complete science, he dwelt upon the vast results which the microscope had accomplished of late years, and the great discoveries in physiology which the present generation has made and is now making; incidentally referring to the valuable researches of Dr. John Dean,* of this city, into the minute structure of the nervous system, which he characterized as among the most important contributions which had ever been made in this field of microscopic study. In speaking of the laws of force, and the limit beyond which human investigation fails, and must always fail to go, the Professor spoke with an eloquence and reverence which moved his audience most profoundly. Referring to the limitations of human knowledge,—Science, said he, is the topography of ignorance. We triangulate the space from one little peak to another above the vast abyss of the unknown around and below, and with our sounding lines we here and there bring up a little sand or gravel from the bottom which our dredges can never hope to reach. His summary of the elements of the human frame, and his description of the methods in which they are combined, illustrated most happily by various novel comparisons to processes used in the mechanic arts, together with a simple mnemonic system by which they could be easily retained in the mind, were particularly interesting and instructive.

The Professor's attention was naturally given, in the main, to those divisions of medical science which are principally engaged in observation, and so his own and the department of chemistry were most particularly dwelt upon. He did not omit, however, to refer to the great improvements in modern surgery over the barbarism of the ancients, and he urged the importance of the study of Nature's laws in the practice of medicine. In this connection he used an illustration, which, literally interpreted, like an epigrammatical expression employed by him on another occasion not a great while since, would, we are confident, convey a false impression of his belief in the efficacy of medicine in the treatment of disease. Such expressions grow out of the habit of a man's mind, and should be interpreted in the light of this fact. The whole discourse was radiant with the author's peculiar brilliancy, and crowded with the profuse imagery of his inexhaustible imagination.

* The Lumbar Enlargement of the Spinal Cord. By John Dean, M.D. With four Plates. Memoirs of the American Academy of Arts and Sciences, Vol. VIII., Part I., New Series. Boston, 1861.

It chained the attention of his audience from beginning to end. We sincerely hope it may be published, for it deserves a larger audience than the lecture-room of the College can contain. The lecture was listened to by a crowded auditory, and, judging from appearances, the number of medical students for the winter is quite up to the usual attendance in past years.

ARMY BLANKETS.—We have learned from an authentic source that the blankets supplied to the 22d Mass. regiment are of the most worthless character. Many of them are already in rags and entirely unfit for use. We also hear that the English blankets, purchased for the government, turn out, at least some of them, to be of the most miserable quality. The method of testing the strength of a blanket is, we are told, to spread it out on the floor, to stand in the middle of it thus spread out, and taking hold of the sides to pull upon it with main strength. Under this test, the English blankets give way at once, and handfuls can be torn out with the greatest ease. There must be fault somewhere, and we see no reason to attach it to the dealer, who sells his article for what he can get. Are the purchasers of army blankets competent to judge of the quality of the goods they buy?

MESSRS. EDITORS,—In my review of Dr. Jackson's book on Ether, I was misled by his expression in a note at page 66, coupling, in a charge of untruthfulness, the New American Cyclopædia with a book entitled "Trials of a Public Benefactor," by Dr. Nathan P. Rice, so far as to attribute to the former a mutilated quotation which is not in it, but which occurs on page 218 of the latter. To this latter must therefore be transferred the charge of dishonesty and of this particular untruthfulness. We cannot but consider it unfortunate that the Cyclopædia should have relied upon, and referred to this book of Dr. Rice, when it might have obtained the facts in their truth from headquarters, the "*Comptes Rendus*" of the French Academy.

W. E. C.

MESSRS. EDITORS,—In looking over some old papers to-day, of 1828, in the *New Hampshire Observer* I found the description of a "new disease," so called. Thinking it might be diphtheria, and it being unsettled when that disease first appeared in this country, I herewith send a you a part of the paper with the article on the subject. We certainly see by it that there was a disease thirty-three years ago which was very fatal, and appeared to be diphtheria by the mode of attack and termination. If it is worthy of notice, it is at your disposal.

Yours, &c.,

F. H. CURRIE.

West Boscawen, N. H., November 9th, 1861.

CURIOUS DISEASE.—Within the last three weeks, Mr. Alvah S. Crafts, of Middlefield, has lost three children, and is now childless, by a disease without a name in this country. The first symptoms of diseased affection show themselves in a cankerous humor, near the root of the tongue, inflammation ensues, and the subject finally dies in all the agony of the croup.—*Freeman's Journal*.

WE publish to-day an interesting letter from an old and valued correspondent, Dr. James Bryan, Surgeon of the Cameron Dragoons. Dr. Bryan is well known as a former Professor in the Philadelphia College of Medicine, and we welcome him again most cordially to our pages. For his communication we offer him our

grateful acknowledgments. We shall be most happy to hear from him at any and all times.

DR. ALFRED HITCHCOCK, who was ordered to report to the Surgeon-General at Washington, having been elected to the Executive Council of this State, has declined the army appointment.

Dr. H. M. WELLS, late Assistant Surgeon of the United States Naval Hospital at Chelsea, has been detached from service there and ordered to join the sloop-of-war Portsmouth, at Kittery. He has been succeeded by Assistant Surgeon C. H. Perry, of Worcester. Dr. Fox is the Resident Surgeon at the hospital.

THE NEW YORK MILITARY HOSPITAL.—The building now devoted to the sick and disabled volunteers was formerly a department of the General City Hospital, but after lying in disuse for two years, says the *New York Daily Times*, it was, on the 26th of April last, taken in charge by a leading physician of New York, who, with his assistants, led by Dr. Hogan, has fitted it up in complete order as a military hospital. Only twenty-two deaths have occurred up to the present time, although six hundred and forty patients have been admitted. Many have been discharged well, and have reassumed military duty; while others who never should have enlisted, through incapacity to endure hardship, have been sent away relieved as far as possible. At the present there are but seventy-five patients in the Hospital, and of these twenty-seven were received during the passage of the Forty-Fourth (Albany) Regiment through the city.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 9th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	31	29	60
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.9	33.0	67.9
Average corrected to increased population, . . . . .	..	..	75.71
Deaths of persons above 90,	1	..	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
9	1	1	1	8	0	1	2	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Nov. 2d.

Mean height of Barometer,	29 985	Highest point of Thermometer,	59.0
Highest point of Barometer,	30 342	Lowest point of Thermometer,	31.0
Lowest point of Barometer,	29 500	General direction of Wind,	W.N.W.
Mean Temperature,	45 0	Am't of Rain (in inches)	1.387

NOTICE.—Our subscribers in Essex County and the South-eastern part of New Hampshire are respectfully informed that Mr. Benjamin Drew, Collecting Agent, is about to present bills to them in person. We bespeak for him a ready welcome and a prompt payment.

BOOKS AND PAMPHLETS RECEIVED.—On the Parasitic Affections of the Skin. By T. McCall, M.D. London, John Churchill, 11 New Burlington St. (From the publisher.)—On Sounds caused by the Circulation of the Blood. By A. Leared, B.A., M.D., Dub. et Oxon., &c (From the Author.)—Proceedings of the Royal Society, Vol. II., No. 45. London, Messrs. Taylor & Francis. (From the publishers.)—Lectures on Materia Medica and Therapeutics. By John B. Beck, M.D. Third Edition. Prepared for the press by C. R. Gilman, M.D. New York, S. S. & W. Wood. (From the publishers, per Ticknor & Co.)

MARRIED.—In Salisbury, Nov. 5th, Yorick G. Hurd, M.D., of Amesbury, to Miss Ruth A. Brown, of S.—In New York city, Nov. 11th, Alfred E. M. Purdy, M.D., to Miss Annie F. Stout.

DIED.—In this city, Nov. 5th, Edward Brooks Everett, M.D., 31.—Nov. 9th, of typhoid fever, James H. Bridge, M.D., 26 years, 3 mos.

DEATHS IN BOSTON for the week ending Saturday noon, November 9th, 60. Males, 31—Females, 29.—Accident, 1—apoplexy, 2—bronchitis, 1—cholera infantum, 1—consumption, 9—convulsions, 3—croup, 1—diarrhoea, 2—diphtheria, 1—dropsy of the brain, 5—drowned, 1—dysentery, 1—scarlet fever, 1—typhoid fever, 2—disease of the heart, 2—infantile disease, 4—intemperance, 2—jaundice, 1—congestion of the lungs, 1—inflammation of the lungs, 8—marasmus, 2—old age, 1—paralysis, 2—rupture (of aorta), 1—unknown, 4—uræmia, 1—whooping cough, 1.

Under 5 years of age, 27—between 5 and 20 years, 5—between 20 and 40 years, 10—between 40 and 60 years, 6—above 60 years, 12. Born in the United States, 38—Ireland, 15—other places, 7.

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VOL. LXV. THURSDAY, NOVEMBER 21, 1861. No. 16.

DOUBLE ANEURISM OF THE AORTA, COMPRESSING AND DESTROYING THE LEFT PRIMARY BRONCHUS, AND CAUSING
A PECULIAR AFFECTION OF THE LUNG.

[Read before the Boston Society for Medical Improvement, Sept. 23d, 1861, by HENRY I. BOWDITCH, M.D., and communicated for the Boston Medical and Surgical Journal.]

G. W., a stout-built, American, locomotive engine-driver, I saw, March 19th, 1861. His history was as follows:—Always well, that is, no long illness or accident to prevent work, until four years ago, when he was severely injured in the chest while drawing a locomotive. He was not long confined after this, and soon resumed his usual labor, but he had never been exactly as well as before, and at times there had been a feeling as of a “football” in the epigastric region. For two years this state of things continued, not constant, however, and during all this period he was at work daily as before. Then a hard, dry cough commenced, which had continued to the time of my visit, when it was violent, ineffectual and excessively exhausting to the patient, and distressing to his friends, and without expectoration, except of the most trivial, white, frothy character. A year ago, he had “asthma,” so called, obliging him to sleep with the windows open. Of late less of that, but a more permanent dyspnœa. Four months before my visit, he had what was called “lung and typhoid fever” by the attending physicians, since which he had been prevented from all work by an aggravated cough and great dyspnœa, especially on any exertion, and when lying in certain positions. The easiest posture, latterly, had been the sitting one, with the forehead bent over, and resting with his face horizontal upon his hands, supported by a cane. With this state of things came on an œdematous condition of the face, and, to some extent, of the limbs, at times. He had had pains, more or less, in the middle and small of the back. He had not complained of palpitation. His appetite had been poor, but bowels regular. At times there was retching, from the severity of the cough, but never vomiting. The urine had been high colored, with a red sediment, since the fever. He had had no regular hectic, though there was copious sweating after the

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severe straining paroxysms of cough, and varying like them in frequency, from once every half hour to once in twenty-four hours. At my visit he appeared like a man above the usual size, tall, large, well-formed. His countenance had a puffy, pale look; not anxious, but evidently every breath was a labor to him. The cough was loud, painful from its length and severity, and without relief. It seemed to cease from the fatigue of the patient, often, at times, lasting ten or fifteen minutes, without having accomplished any expectoration. It was not crowing, or precisely hoarse in its tone. The least exertion evidently increased the labor in breathing; speech even increased it. The pulse was 100, regular and small, not evidently different in the two wrists. The tongue was healthy. He complained chiefly of trouble in the left breast. No swelling of feet.

I examined the physical signs on two successive days, and at the last examination Dr. Ellis accompanied me, and made an independent diagnosis. We both came to the following diagnosis and prognosis:—large aneurism of the aorta, about the arch and descending portions, interfering with, and causing the disorganization of, a large part of the left lung. The right lung is healthy, apparently. No evidence of valvular or other lesion of the heart, but dislocation of it outward and downward. Prognosis, death.

Our reasons for these opinions were the above-named rational, and the following physical signs.

Inspection.—A peculiar fulness and rounding out of the whole contour of the neck, seeming as if it were stuffed out. The vessels were manifest, and the larynx and sterno-cleido muscles were not in the least perceptible. The chest likewise was full, but without local prominence, save perhaps in a slight degree about the left clavicular region. The apex of the heart was seen beating low, and under the axilla.

On *percussion*, there was a small space about the aortic region, over the sternum, where there was a slight dulness, but a clear pulmonic sound elsewhere in both breasts. Behind, the percussion was flat at the left of the vertebral column, and to the width of three or four inches from top to base of chest. Clear resonance under axilla, even to base, or nearly so.

Auscultation.—Strong bronchial respiration was heard in the upper third of the left lung, with obscurity of respiration elsewhere, *even in parts resonant*. At the first examination there were loud “consonating” râles where bronchial respiration was heard in front, and they were caused by the motions of the heart being synchronous with the movements of that organ. They were not heard subsequently, at two examinations.

Cardiac and Aortic Physical Signs.—No marked prominence about aortic region, but the heart was seen pulsating two or three inches outside and below the usual spot. Its impulse and sounds were not unusual. But over the aortic region was an impulse, evident,

with a strong bellows-murmur. This murmur was heard very strongly in the left back. There were no morbid sounds over the right lung, front or back, save puerile respiration, and the transmitted aortic bellows-murmur.

A preparation containing digitalis, colchicum seeds and acetate of morphia was given as a placebo, and with the faint hope of giving a slight ease from the constant dyspnœa. Tincture of gentian, as a stomachic, was also allowed.

On March 24th, i. e. three days subsequently, I saw him again. He had been easier, and had been able to lie on the right side. Could not easily sit erect, or attempt to lean forward without severe pain seizing him all around the waist, for a space about three inches in width. The cough had been severe, and he had raised, for the first time, a little blood.

From this he continued about the same, until April 2d, i. e. nine days subsequently to my last visit. On this day he had a sudden copious hæmorrhage, estimated at one or two pints, under which he fainted. Eleven days afterwards, another hæmorrhage, still larger, occurred, and he was found weltering in his blood, and *in articulo mortis*.

Autopsy by Dr. ELLIS, about twenty-four hours subsequently. Body large and pallid. Much œdema of the cellular tissue everywhere. From four to six ounces of serum in the pericardium. The heart was pale, but normal. The first inch and a half or two inches of the aorta were dilated in such a manner that shallow pouches were formed. The next five inches were largely dilated, the vessel here measuring nine inches in circumference. Within, were layers of fibrin, with a maximum thickness of one inch, but gradually blending with the lining membrane, with some smaller and thinner deposits of the same character. Beyond this dilated portion, the vessel was about the usual size, and continued so for an inch, when it again dilated, forming another pouch, about two inches in diameter and an inch in depth. Both of these had compressed, and finally opened into, the left primary bronchus, of which a portion, an inch and a quarter in length, and involving nearly the whole circumference, was destroyed. The edges of the opening were very irregular; and the base was formed by the light-colored coagulum previously described. The communication with the smaller aneurism was established by a small opening near the other. A portion of the surface, from a quarter to half an inch in diameter, of one of the secondary bronchi, was also deeply ulcerated, but not by the immediate action of the aneurism. There was a marked depression in the vertebral column behind the enlarged vessel, presenting the usual appearances of eroded bone.

The left lung was not seen on raising the sternum. The pleural surfaces were firmly united by thick false membrane, rough over a portion of the surface, and not very dense, but at the apex and posterior part very thick, firm and fibrous. At the apex it formed

the walls of a cavity upwards of an inch and a half in diameter, filled with serum, and lined by a delicate reticulated membrane. The lung was eight inches long, and four wide. It was generally of a dark-gray color, and quite dense, though some parts contained air, but not enough to cause crepitation. The elasticity was most marked on the side and back. Scattered throughout its substance were irregular, dull-yellow portions, of all sizes, from that of a mere point to that of a pea. At the time of the examination, there were apparently many small cavities filled with pus, but after thoroughly washing the part these were not so obvious. The appearances, however, were unquestionably owing to inflammation. The bronchia and bloodvessels were everywhere seen upon the cut surface. The former were filled with a bloody fluid. The inner surface of the smaller bronchia was covered with a thick yellow material, partly composed of degenerated epithelium. It was about the extremities of some of these that the lung appeared to be particularly diseased.

The vessels seen did not contain coagula, and were in appearance healthy. The same was true in regard to the branches arising from the arch of the aorta. The bronchi were full of bloody fluid.

The right lung was enormously hypertrophied, and did not collapse, either when removed from the chest or after incision, small portions, even, showing this peculiarity. It was elastic, and crepitated throughout.

Scattered throughout the lung were numerous, small, deeply-injected spots, which contrasted strongly with the adjacent tissue.

The spleen was large and dark; the kidneys were dark, but normal; the intestines appeared well.

Remarks on the Case.—It had been deemed a very obscure one up to the time of my visit. Yet on a thorough examination of the symptoms and of the physical signs of the lungs and heart, it seemed impossible to make any other diagnosis than that to which we arrived.

Dr. Ellis was materially aided in making up his mind by a series of similar cases reported by him in this JOURNAL, Dec. 4th and 11th, 1856, and to which I would call attention. They prove that "inflammation and abscesses of the lung" may occur, when from any cause a primary bronchus is obstructed.

DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE IX.—(Concluded from page 309.)

IN chronic diseases, though the essential principle upon which the regulation of the diet is to be managed is the same as in acute, yet the greater variety of the conditions they present render its regulation more complicated. First of all, the selection of the

food and its quantity depends upon a regard to the appetite of the patient and the disposition which the digestive organs are capable of making of it; but beyond this it is also necessary to consider the relation which the quality of the food bears to the nature of the disease, and to the influence it may exert as a remedial measure. These topics can only be very superficially treated of, and we must confine ourselves rather to indicating the course to be pursued in the study of diet in its relation to disease, than attempt a complete exposition of the details of its management.

The appetite and the state of digestion are obviously the first things to be looked to as our guides to the diet, and yet it is equally obvious that they are not alone sufficient guides, but must be subject to many qualifications. Considered by themselves alone, we find them presenting the following varieties:—

1. The appetite and the digestion may be both good, or in a natural condition.
2. The appetite good and the digestion bad.
3. The appetite bad and the digestion good.
4. The appetite and the digestion both bad.

The terms are here used in their usual and most comprehensive sense. We call the appetite good, when it does not notably depart from the healthy standard, and it admits of all degrees of departure from this, both as to kind and quantity, down to a point in which it is absolutely absent and attended by an actual repugnance to food, or even by nausea. We call digestion good, when the function, considered in its whole extent, is healthfully performed, and it departs from this in various degrees, till no operation is performed on the food, but it is either rejected or passed through the canal without any effort at assimilation. It is obvious that here is an opportunity for unlimited variations in both respects. The appetite may be good for vegetable food and bad for animal food—good for liquid and not for solid—good for sweets and not for acids. The power of digestion may present similar differences. It is manifest therefore that, although these are necessary points of attention, in studying the appropriate diet in any case, they still include under them a great many other particulars which require consideration. Thus the patient may have a sufficient desire for some particular kinds of food, but not for those which are appropriate to his disease or to his capacity for digestion; or it may be, as to quantity, far beyond his power of digestion; and so his capacity for digestion may be good as to certain kinds of food, but not for those which he most desires; these may be such, that if they are taken, they inevitably derange his stomach, or disturb his bowels. For example, in the capricious state in which patients are often found, simple food like bread, milk, rice or meat, may be disliked, and yet if taken, be borne and digested perfectly well, whilst the preference is for gravies, rich

soups and puddings, pastry, preserves, cakes, &c.—which, if taken, are likely to do injury.

These particulars present infinite difficulties of judgment, and require in each case a careful and repeated study of these two relations of appetite and digestion, and of the proper correspondence between them. It is to be kept in mind, also, that this relation is liable to undergo constant changes. It may be that these changes are frequent and abrupt; that the food which is relished to-day will be loathed to-morrow, or that which agrees well to-day may oppress to-morrow. More frequently it happens that a course of diet which has proved suitable for a considerable period, will, without any change of symptom or in the character of the disease, become unsuitable.

As a general principle of judgment the appetite is to be always first consulted. What is best relished is apt to be best digested, or at any rate, that which is taken without relish is very apt not to be well digested. Still this is very far from being a rule capable of universal application. The exceptions are almost innumerable. But it is more common to have the appetite suggest that food which the stomach can digest well, than to have it digest well that at which the appetite revolts. This is so much the case that it is seldom proper, for any length of time, to insist rigidly upon a course of diet which is offensive or even distasteful to the patient. Yet this is sometimes necessary, and is particularly likely to be found so in those who have been addicted to good eating as a special enjoyment—have accustomed themselves to food delicate in kind and cookery, and have consequently become self-indulgent and fastidious as to taste and seasoning. In such persons are found some of the hardest cases to manage. Feeding has become a matter exclusively of indulgence of the palate, without any regard to the relations of food as nourishment, and unfortunately the direct evil effects of the articles to which they are addicted do not take away the relish for them, as often happens with regard to simpler food. Hence we have to contend with a vicious sensual habit, and, at the same time, a perverted habit of mind. These are the patients in whom the relish for food can hardly be at all consulted. It is often necessary to confine them to that which is absolutely disagreeable, and to subject them to a species of discipline of the digestive organs, under which alone they can return to a healthy condition. Under such discipline they may for a time lose both flesh and strength, but in the end a natural appetite becomes restored.

Beginning with a reference to this correspondence between appetite and digestion, and keeping also steadily in view the effects of all food, and its relation, both as to kind and quantity, to the nature of the disease, a variety of other particulars require attention in the adaptation of diet to each case.

There are some cases in which the processes of disease going on are not of an exhausting character; there is little consumption of the material of the system—there is little suffering or pain—no loss of sleep—no disturbance of the mind or nervous system, and but little if any increase in the activity or rapidity of the circulation and respiration. Commonly the ordinary nutrition is diminished, and there is less appetite and capacity for digestion; but this is not always so, so that there sometimes is and sometimes is not, a degree of emaciation and diminished strength. Examples of this kind are found in the early stages of some malignant cases—of slow tubercular disease—of hypertrophy, and of many others. In such, a smaller quantity of nutriment may be sufficient, than in health; the kind to be selected by a reference to the relish of the patient and to the phenomena of digestion. The quantity, however, is not to be diminished below the healthy standard, at the risk of reducing strength. The true amount is that which is most perfectly assimilated. In health a quantity beyond the demands of the system may be taken with comparative impunity, and nutriment imperfectly assimilated may be introduced into the mass of blood and disposed of without injury. In disease this is less likely to be so, and the presence of an imperfect material tends to aggravate the disease.

There are some cases of a peculiar and rather mysterious character—not organic in their nature—in which there are many irritating symptoms—very imperfect sleep—a capricious and variable appetite and a loss of strength, yet in which the nutrition, so far as bulk is concerned, is well preserved; the countenance is healthy, and the appearance of health is maintained, though the patient complains of much suffering of various kinds. These cases are usually called nervous or imaginary, and are often hardly judged and get little pity. There is no doubt, however, that the sufferings are real, though aggravated by the state of mind and the apprehensions of the patient. These cases are usually connected with hysteria and obscure functional affections of the womb, but cases closely analogous, though infrequently, do occur among men. The kind of food must be determined by the observation of each individual, but the quantity should be usually less than that which the appetite calls for—less than that which is taken in health, but of a nutritious and rather stimulating character.

A very different class of cases from both these, is where an exhausting and reducing process is going on, as where there is either a great consumption of material—a very active circulation and respiration—a great deal of pain, irritation and suffering of various kinds—and a loss of sleep. Of this class are large discharges of pus—pulmonary consumption, and scrofulous diseases of the joints, with hectic fever—the late stages of cancer, diabetes, dropsy, and many others. Here, when the appetite and digestion are good, a free, nourishing and stimulating diet is to be allowed; and

where they are not good, a principal object is to restore them if possible by tonics, stimulants, and a constant supervision of the hygienic condition in all respects. Everything in the way of changes and delicacy of food, abundant exposure to air abroad and change of place, are to be had recourse to in order to solicit the return of the powers of the digestive organs. The rapidity of progress in such cases, particularly in those which are necessarily fatal, is very much modified by the state of the digestive organs in this respect. As long as the appetite is good, and the capacity for assimilating as well as taking food remains, the progress may be slow and life protracted a long time, even with a great amount of disease, whilst, in the opposite state of things, the decline will be speedy.

We observe in some forms of chronic disease, that the appetite is sufficient, perhaps greater than that of health; digestion, so far as we can judge, well performed; there is no obvious exhausting or irritating process going on, and yet the patient gains neither flesh nor strength, but, on the contrary, becomes daily weaker and regularly emaciates. This is indicative of a very unfavorable condition, usually of the existence of some irremediable organic disease, either latent, or else of such a character as not to disclose by any of its obvious traits the circumstance upon which this failure of flesh and strength depend. Organic disease of the brain, such as softening, and malignant disease in the abdomen, furnish the most frequent examples of this; but there are some cases which prove fatal in which no disease whatever is found, and others, especially in young persons, where ultimately recovery spontaneously takes place. It is difficult to determine here what becomes of the nutriment which is apparently assimilated and absorbed. Perhaps, as one of the obscure results of the disease, nutrition is prevented, or the assimilation stops short of that degree of completeness which renders its results suitable for application to the purposes of life, and they are carried off by the excretions without any such application.

Probably a large proportion of those chronic affections usually denominated functional—that is, which are not accompanied by any permanent organic change—are connected with something imperfect, or something vicious in assimilation, in consequence of which the nutritive processes are disturbed and abnormal. Whether this depends wholly upon the state of the blood, or upon the application of the blood to its purposes, it is impossible to determine, perhaps upon both. The influences combined are various and complicated, and they must be met by measures that are equally so. Among them the regulation of the diet, and of those causes by which the digesting and assimilating organs are governed, are among the most important. This is most strikingly illustrated in the history of scurvy, where their influence in the production of the disease, and also in its removal, has been so often

noticed. This is undoubtedly the most distinct and forcible example of the kind, but it is reasonable to believe that analogous though less clearly cognizable results may follow from other deviations from a healthful mode of living, and may be removed by a corresponding regulation of the habits of life.

In all chronic affections the relation of the diet to the assimilation is a consideration to be always kept in mind. We are to regard not merely the relation of food to the primary digestive organs and their immediate and direct disturbance, but further the way in which its quality and the changes it may undergo in the course of its assimilation may affect the character of the nutrition in all parts. We are too apt to confine our attention to the immediate influence of different articles of food upon the stomach itself and the alimentary canal; and to the effects which these organs may have on other parts from sympathy with their disturbed condition. But these effects, though immediate, are comparatively transient, whilst it is probable that the other effects adverted to, though less obvious, are more permanent and difficult to remove.

The following remarks of Dr. Prout in regard to one particular form of aliment, the oleaginous, are of much significance, and are to be considered not only in relation to this form, but as also capable of application to the whole subject of the connection of the state of the nutrition with disease and of the influence which food may have upon it. "This subject," he observes (the pathology of the oleaginous principle), "in many points of view, is one of great importance; as I am satisfied, from long attention to the matter, that the oleaginous principle is much more deeply implicated, not only in the operations of organic life, but in those higher operations connected with the animal functions, than is commonly supposed. If such be the case, its pathology must be commensurate; and I venture to foretell that this will hereafter prove to be the case; and that some of the most formidable diseases to which animal existence is liable, will be found to be connected with, or to result from, the mal-assimilation of the oleaginous principle."

Remarks coming from so careful and dispassionate an observer, and drawn from so wide and experienced an observation, deserve to be carefully considered. They are eminently suggestive, and are capable of application to the whole subject before us. Other alimentary principles besides fat, may by their mal-assimilation, according to the constitution of different individuals, and also according to the different forms and qualities which the same alimentary principle may assume when coming from different sources, play an important part in the production and course of disease, and also upon the symptoms which are from time to time exhibited. The study of diet, therefore, in relation to disease, may be greatly assisted, and the successful arrangement of it be promoted by attending to such suggestions.

The efficacy of certain remedial measures having sometimes a decided influence in changing the whole character and course of disease, is probably founded upon a power they possess of correcting the mal-assimilation of some of the elementary principles of food, or of giving a new direction to some of the processes of nutrition. Examples of this sort may be found in the effects of cod-liver oil, of the vegetable acids, especially lemon-juice in large quantities, the free use of fruit, of wine, of mineral waters, and of iodine.

The affections connected with an imperfect or vicious assimilation, either as cause or effect, are among the most important chronic maladies which become the subjects of treatment, because they may ultimate in organic disease if not arrested; and also because they may continue many years, without any such tendency, and, unless they do, there is always a prospect of their removal by such means as will promote the natural tendency to recovery. It may also be remarked of them that there seems to be in many constitutions a spontaneous revolution which in time effects their removal, probably by a change in the mode of nutrition of which we can give no account. Thus, in consequence of such a revolution, many aggravated and inveterate cases of dyspepsia, which have afflicted patients for years, cease gradually when they pass the middle of life; and, more especially, headaches under which they have labored from youth upward, disappear on the approach of age. The most marked examples, however, of such spontaneous revolutions of the constitution are to be noticed in children. It often happens that those which have been previously either simply of feeble health, or else subject to croupal and other complaints of the throat, and to frequent or constant affections of the lungs and digestive organs, undergo an entire change in all these respects, and become comparatively healthy. Something of the same kind, though less frequently and to a less degree, may be observed at a subsequent period in connection with the development of the sexual distinction.

It is to be recollected that no regulation of the diet alone, is sufficient in all cases to ensure a perfect state of the assimilation, without attention to other precautionary hygienic measures. It often happens that a well arranged system of diet, strictly carried out, is utterly inefficacious, whilst a change of residence, of climate, of occupation, of habits of life, is at once successful; and so, too, we sometimes find that a similar change will prove effectual, in spite of a total disregard of all the dictates of prudence as to the selection of food.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

OCT. 28th. *Internal Strangulation of a Loop of the Small Intestine.*—Dr. ELLIS showed the specimen, which was sent him by the attending physician. It was taken from a man, 23 years of age. Three years before his death he had what was considered colic, which was followed by typhoid fever. After a confinement of four weeks, he slowly recovered, but for four months he was unable to attend to his usual business, which was painting. He then turned his attention to paper-hanging, and enjoyed pretty good health until September 25th, when he was attacked with severe pain in the umbilical region. Castor oil was given, and also an injection; the latter only operated. On the following day he vomited the oil. Twelve grains of calomel and rhubarb were then given, in doses of two grains. These were rejected in the evening, and afterwards a large quantity of fluid, containing a green, flocculent material. An injection of senna was then given, but passed off without any faecal odor. On the following morning, senna and salts were administered, without the desired effect. The next day he was seen by another physician, who advised croton and castor oils. These were rejected. Three days afterwards he was seen by a third physician, who advised two drops of croton oil every four hours, until twelve drops were taken. This was rejected, and the matters vomited had a faecal odor. From that time he vomited large quantities of fluid two or three times daily, although what he took would sometimes be retained six or eight hours. Enemata seemed to soothe him. Brandy and whiskey were given, and local applications made. The pain was always in the umbilical region, but of no great severity. He complained rather of a distressed feeling. No tenderness on pressure. During the first week there was fever and a red tongue. The pulse, on the first day, rose to 130, but afterwards fell to 104. The countenance was good, and he seemed to die of exhaustion, seventeen days after the commencement of the attack.

The intestine was the only part seen by Dr. Ellis. The different portions were everywhere united by old delicate false membranes, which it was found necessary to separate before the condition of the parts could be ascertained. It was then found that a loop of the small intestine, four or five inches in length, by estimate, and fifty-one inches from the cœcum, was of a blackish color, and constricted at the two extremities. Considerable distension of the intestine above. Near the lower constricted point were a few small, sharply-defined, superficial ulcers, perhaps a line in diameter. No other trace of recent inflammation, either external or internal.

Dr. BOWDITCH protested against the use of active cathartics in obstruction of the bowels where there is any suspicion of strangulation. The pain should be relieved by opiates, leeches should be applied to any spot where there is tenderness, and the strength of the patient should be supported by concentrated nourishment.

Dr. JACKSON said that he had examined, *post mortem*, many of these cases of "stoppage of the bowels," so called, and the treatment in a large proportion of them had been one and the same—cathartics, commencing with the mild, and ending off with the most drastic,

sometimes only at the death of the patient. Nothing seemed to be thought of the condition of the organs; the constipation was the one sole object. There are so many conditions, he remarked, in which this one symptom should not be so attacked, that it would seem to be wiser to pursue a palliative course in an obscure case, and where the symptom in question resisted ordinary means—presuming that one of these conditions might perhaps exist. Internal strangulation may often be overlooked by the best observers; but there are cases in which the diagnosis is sufficiently clear, and in such there would certainly be but one course to pursue. The fact that the patient has had similar attacks previously, is in itself one of the indications of strangulation. The mechanical cause has existed, perhaps, for years, and the intestine may have been often partially strangulated, as in external hernia; the intestine withdrawing itself if not irritated. Dr. J. has often found the stricture perfectly tight, so that no active treatment could have relieved it but the knife; but, on the other hand, he had often found the intestine lying perfectly loose in the sort of ring through which it had passed, and so that it readily withdrew itself when the parts were held up. He had formerly heard Dr. James Jackson speak of a very interesting case that he once saw in consultation; in addition to the other signs of internal strangulation, there was a tumor in the abdomen; the patient was being treated, as usual, by cathartics, and Dr. J. used every endeavor to stop this fatal course; he succeeded, and the result was perfectly successful; the tumor gradually subsided, and with the relief to the symptoms there came the free alvine discharges that so often follow the operation for external hernia.

Dr. FIFIELD said it was not always possible to bring philosophy to bear on these cases. The diagnosis of internal strangulation is not always easy, and it is certain that some cases *are* relieved by laxative treatment. The patient and his friends, knowing that he would be relieved by a movement of the bowels, will not be convinced by arguments or statistics, and the physician is sometimes forced to adopt a line of treatment which is perhaps contrary to his judgment.

Dr. COALE had found enemata of assafoetida and the inhalation of ether of service in these cases.

Dr. WARREN said he had had patients go from ten to fourteen days without evacuating the bowels, after an operation for lacerated perinæum, for example, who did not suffer the least inconvenience from it. He considered cathartics in cases of strangulation as injurious. He generally gave ether first, by inhalation, to relieve the pain, and then opiates; these assisted by local applications. In cases of stoppage, with tumor in the cœcal region, if no organic affection, this method had succeeded in producing a natural discharge. A mild laxative, or an enema, perhaps, may be used after all irritation has subsided.

Dr. H. K. OLIVER had kept a patient constipated for twenty-one days, after an operation for lacerated perinæum, without any discomfort to her.

Dr. ELLIS remarked that the cause of death, in internal strangulation, is very mysterious. It is not owing to inflammation or rupture. There was no peritonitis in this case. The strength of the patient seems to sink under the effort to overcome an invincible obstacle.

Dr. JACKSON said he had never seen peritonitis in any case of internal strangulation, however long it had existed.

Nov. 11th. *Injury of the Axis, with Separation, Displacement and subsequent Anchylosis of a large Portion of it with the third Vertebra.*—Dr. J. WYMAN exhibited the first four cervical vertebræ from the human body, the second, third and fourth of which were anchylosed with each other; and in addition, the following abnormal conditions existed. A part of the body of the axis, with the odontoid process, the whole of the articulating surface on the left side, and a large portion of that on the right, had been detached from the arch, carried forward, depressed obliquely in front of the third vertebra and anchylosed with it. The line of separation, though obscured by subsequent changes in the surface of the bone, appears to have been obliquely from above downward and forward, through the body of the bone, through the left pedicle, just behind the foramen for the vertebral artery, and on the right side through the hinder part of the articulating process, leaving the foramen for the vertebral artery in connection with the arch behind it. The base of the odontoid process was in front of, and on a level with, the body of the third vertebra. The body of the axis, when seen in front, has its natural texture, but is continued downward by a thick accidental ossific deposit in front of the fourth vertebra, which last is mostly concealed by it. The arch of the axis remains in its natural position, and is anchylosed with the third vertebra by means of its articulating processes. The space corresponding with the intervertebral foramen is bridged over by adventitious bone. Behind the odontoid process the remaining portion of the obliquely truncated body of the axis is seen in its natural position. The foramen for the vertebral artery in the axis, on the left side, instead of being just above that of the next vertebra below, is in front of it, but is in its natural position on the right.

The atlas presents several abnormal conditions; its upper articulating surface on the left is polished from direct contact with the condyles of the occiput; the arch is not closed up posteriorly, and is considerably roughened at this part, as if from the effects of disease; on the under edge of the arch there exists on each side an accidental articulating surface, corresponding with similar ones on the upper edge of the axis, where the two bones have rubbed on each other. These false articulating surfaces are in the direct line of the true ones below. When placed upon the axis, the atlas is in advance of its natural position, in consequence of the odontoid process having been carried forward, and its arch, instead of being just above that of the axis, overhangs the middle of the spinal canal, and thus very materially diminishes the diameter of it. Sufficient space, however, is left to lodge the spinal cord without compression, but not enough to admit of much freedom of motion.

These bones were taken from a dissecting-room subject, and nothing is known of the history of the case. The complete union of the different parts, and the absence of any indication of active disease, show that the injury occurred at a long period before death. There was nothing in the general appearance of the bones to show whether displacement took place suddenly, from the effects of an accident, or was the result of prolonged diseased action.

Cases more or less resembling the above have been reported by different observers, and among them the following:—

Description of a specimen of dislocation of the atlas upon the vertebra odontata, attended with contraction and distortion of the verte-

bral canal, by Alexander Shaw. (Med.-Chir. Trans., Vol. XXXI., p. 289.)

An account of a dislocation consequent on disease of the first and second cervical vertebræ. (Med.-Chir. Trans., Vol. XXXI., p. 285.)

On Dislocation of Vertebræ, by William Lawrence. (Med.-Chir. Trans., Vol. XIII., p. 387.)

Bibliographical Notices.

On the Parasitic Affections of the Skin. By T. M'CALL ANDERSON, M.D., Fellow of the Faculty of Physicians and Surgeons, Physician to the Dispensary for Skin Diseases, Physician to the Deaf and Dumb Institution, Glasgow, &c. London: John Churchill. 1861. 8vo. Pp. 152.

THIS comprehensive little treatise on one of the most important classes of skin diseases first appeared in a series of articles published in the *Medical Times and Gazette*. The author has wisely brought them together in the volume before us, with several additions and corrections, and has, in so doing, made an extremely valuable contribution to the literature of this subject. The cutaneous affections due to the presence of a vegetable parasite are first considered. These are divided into four classes, viz.: *favus*; *trinea tonsurans*, which comprises three varieties; *alopecia areata*; and *pityriasis versicolor*. The cutaneous affections owing to an animal parasite constitute the second portion of the work. The book is illustrated with wood cuts, and its whole appearance elegant and attractive, and as it should be when we consider the somewhat unattractive nature of the subject. We can conscientiously commend it to the profession for the clearness and accuracy with which the author has treated his subject.

Medical Jurisprudence. By ALFRED SWAINE TAYLOR, M.D., F.R.S., Fellow of the Royal College of Physicians, Hon. M.D. Univ. St. Andrews, Member of the Royal College of Surgeons, and Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Fifth American from the Seventh and revised London Edition. Edited, with additions, by EDWARD HARTSHORNE, M.D., one of the Surgeons of the Pennsylvania Hospital. Philadelphia: Blanchard & Lea. 1861. 8vo. Pp. 714.

WE have before noticed this work at some length, and have only to say now that the present edition has been carefully revised by the author, and contains the latest results of legal and scientific investigations. It is rare that a medical work issues from the press which is of such general utility as this of Dr. Taylor, and from present appearances it seems destined to maintain its high position as a leading treatise on the subject of Medical Jurisprudence. No medical library is complete without it.

Army Medical Intelligence.

[From our Special Correspondent.]

MESSRS. EDITORS,—My series of histories of cases at the United States General Hospital in this city must, for a brief period at least, cease. Since my last communication a sad catastrophe has befallen us. A week ago night before last the Hospital building was discovered to be on fire. The miserably deficient fire department were unable to quell the flames before complete ruin was the result. The scene for nearly two hours was almost indescribable. The agonizing shrieks of the patients, the hurrying to and fro of the sick and suffering, the readiness and eagerness to help of the medical officers, the kindness and true Christianity of the Sisters of Charity, the humanity of all, are painted on my mind never to be effaced. Nor can I forget for a moment the hearty coöperation the patients gave. Though they suffered much, they complained not, and those who were able lent a helping hand to the more needy. The Sisters of Charity, who had the care of the Hospital prior to its destruction, lost everything they possessed, but with patience and true humanity they tried all night and day to relieve the suffering and the helpless. The patients were all saved except one—an old female, who, though able to walk, was in her second childhood. As I write, her bones are being picked up among the pile of ruins. Dr. White, the Superintendent, lost everything, amounting nearly to \$1,500 in value. Dr. Gouley lost nearly \$500 worth, and Dr. Pooley a small amount. Drs. Bodman, Hutchins and Allen, Medical Cadets, lost everything they possessed, and barely escaped with their lives. The patients suffered comparatively nothing from the shock. The convalescents were moved to the other military hospitals, while the more serious cases are still under the same officers in a school-house adjoining the premises.

The loss of such a building at this time is felt by all; it was the model Hospital, in every respect, of the whole army of the Potomac. There will doubtless be another established, but when and where, I am unable to say.

You shall hear from me again ere long.

H.

Washington, D. C., November 14, 1861.

THE following is an extract from a letter giving some account of the present condition of the troops recently engaged at Ball's Bluff.

To the Surgeon General. WORCESTER, Monday, Nov. 11, 1861.

DEAR SIR,—I reached home on Friday last, and as I was at the seat of war in a semi-official manner, with your sanction, it seems to me proper that I should report to you.

I was not able to get away from home so early as I had expected to, and went directly to Poolesville, Maryland, arriving there Wednesday, Oct. 30th. I remained till Friday, Nov. 1st—seeing all the sick and wounded men in Col. Devens's regiment, and some of them several times, besides some of the wounded men of other regiments. All seemed to be very well taken care of, and most to be doing very well; so that only three or four of those then wounded or sick, in all more than one hundred, would probably die.

Dr. Bates was recovering from his illness, though still far from well.

He had got up from his sick-bed on the day of the battle, to render his assistance on Harrison's Island, and had done a large day's work that day and every day after, though needing as much care himself as many of those whom he was taking care of. Dr. Haven was also rendering excellent service, and had been very assiduously employed since the battle. The Brigade Surgeon, Dr. Crosby, of New Hampshire, was doing excellent work. I do not know that it is proper for me to call the names of persons in this manner, but, if it is not, my report is only semi-official as my visit was.

I was very much pleased with the temporary Hospitals erected at Poolesville. The ventilation of these was excellent, and the whole arrangement contributed very much to the comfort and welfare of the patients, as well as to the convenience of the Surgeons and the attendants. Miss Stevenson, of Boston, had arrived the same day that I did, and her services were represented to me as being grateful and valuable.

I did not "inspect" the sanitary condition of any of the other Regiments in that neighborhood.

On Monday, Nov. 4th, my movements having been somewhat retarded by the violent storm of the 2d, I visited some of the Regiments on the Virginia side, in the vicinity of Hall's Hill, with Dr. Lyman, of Boston, Brigade Surgeon and medical director in that vicinity. The sanitary condition of his men was excellent and improving, as may be seen at a glance by the following figures:—

Oct. 1st.—Whole force, 2,882. Under treatment during month previous, 692. Remaining sick, 137; convalescent, 37—174.

Nov. 1st.—Whole force, 3,944. Under treatment month previous, 739. Remaining sick, 61; convalescent, 30—91.

So that while on the first of October one in every 16, or about six per cent, were sick, on the first of November only one in 43, or about 2 1-3 per cent, were sick. In reckoning the number under treatment, during the month, I need not remind you that the whole number advised for, be the cause ever so slight, is reckoned. These results are very gratifying in view of the higher office of the physician.

I went over the Potomac only once, the broken weather and the broken long bridge being serious obstructions to any pleasant or useful inspection. I am most respectfully,

Yours very truly,

J. S.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 21, 1861.

FEE BILLS.—We received, some time since, the following communication, but have not had space to print it nor the opportunity to answer it until now:—

MESSRS. EDITORS,—Can you inform me why it is that medical journalists seem to studiously avoid the publication of the fee bills of their respective cities? Is it a crime to do so? Or is it unprofessional? Or is it that they do it purposely, to enhance the difficulty of physicians in collecting their accounts, by leaving them without any list of regular charges to which to refer?

Every physician knows how frequently the charge of exorbitancy is made against doctors' bills, and one would suppose that a medical editor might know how desirable it therefore becomes to have the regular list of professional charges as familiar as possible to everybody. Notwithstanding this, I have to-day ran through somewhat over 100 volumes of medical journals, some 30 of them being the *Boston Medical and Surgical*, and yet have failed to find a single fee bill in any! They refer very frequently to fees and fee bills; so that they are not ignorant of the existence of such things. Nay, they discuss the matter as if everybody must be *familiar* with the fee bills to which they refer; but, even where they notice radical changes in those bills, they carefully avoid mentioning to what extent, or dropping even a single inadvertent word by which any one might have the least chance of judging of the contents of those fee bills! This, so far as I can judge of the matter, answers only one purpose, and that is the one already suggested:—it leaves physicians without any authority to which they shall refer their debtors, lawyers, or jurors, in proof of the justness and moderation of the charges in their medical bills. It therefore leaves them to have their accounts reduced, by arbitrators, boards of unscrupulous county officers, or the like, to whatever the prejudices or littleness of such persons may dictate.

I suppose that the physicians of Boston *have* a fee bill, and I presume that they would not regard its publication as an infringement of their copyright, or even as an over officious interference with their private business. Would it be asking too much of the *present* Editors of the *Boston Medical and Surgical Journal* to request them to make the hazardous and hitherto untried experiment of publishing the said fee bill in their JOURNAL, for the information of their readers out here on the borders of civilization? Perhaps it might, at the same time, be a very acceptable morsel to some readers nearer home.

GEO. B. WILLSON.

Port Huron, Mich., October 11th, 1861.

The writer of the above is evidently smarting under a personal experience of the annoyances which so often disgust an honorable and benevolent physician in arranging the matter of compensation for his labors. The animus of the profession, we think we may say without presumption, is strongly repugnant to measuring by dollars and cents the value of the service rendered in any case involving responsibility or anxiety on the part of the practitioner. We all know that there are occasions when, under Providence, the hand of the physician holds the balance between life and death. In other instances, the responsibility and the anxiety may be even more burdensome, yet a fatal event may, to many unprofessional minds, detract very largely from the merit of the physician, and make his hard-earned fee the ungracious and grudging tribute from a reluctant hand. All physicians of any experience, we presume, have felt this; it is one of the inevitable trials we must expect to meet. A short time since, in pressing the payment of a small bill upon the relict of a poor fellow, whose last days we had endeavored to make comfortable in his sufferings from the dropsy of albuminuria, we were met by sour looks and the insulting reply that we had continued our attendance for some time after we knew the patient could not recover! Comment on such indecency is unnecessary. We must all, however, swallow our pride as best we may, for fees are necessary and fee tables very important. Our correspondent is unreasonably irritated, we think, at failing to find any published fee lists in the Medical Journals. The simple answer to his question is, that each medical community has its own standard of charges, which is known to the members of that community, and beyond it is of little interest to the profession. Such is the case here, where the fee table is regulated by the Boston Medical Association, an Association to which every member of the Massachusetts Medical Society is entitled to be admitted. The fee table of the As-

sociation has been arranged with great care and deliberation, having been modified from time to time to meet the changing circumstances of the community, and now covers nearly two pages of the Rules and Regulations of the Society, comprising thirty-nine different items. We have not space to reprint the whole, but give some of the principal charges for the information of our correspondent, and any others who may be curious on the subject. It will be seen that a sliding scale has been adopted, and even this is not strictly limited to the charges upon it, as is shown by the following extract from the remarks preliminary to the Rules and Regulations. It is plainly impossible to fix anything more than a proximate standard of charges.

"In the present table, there is named for each service the limits within which the fee shall be placed, though not designing to prohibit a higher charge where the time devoted, or the importance of the service rendered, should call for it; nor, on the other hand, to forbid a deduction to those in limited circumstances, in proportion to the exigencies of the case."

From the fee table we take the following items:—

For a visit	- - - - -	\$1.00 to 2.00
For a visit and first consultation	- - - - -	5.00
For a visit and each subsequent do., if the attendance be continuous	- - - - -	3.00
For a visit out of town,* for every mile from the centre of Boston	- - - - -	1.00 to 2.00
For a visit out of town in consultation, the fee as above for a visit and consultation, with the addition, for every mile except the first, of	- - - - -	1.00 to 2.00
In like manner, for every other service, when out of town, the fee for the service shall first be charged, and for every mile except the first	- - - - -	1.00 to 2.00
For rising in the night† and visit	- - - - -	5.00 to 10.00
For rising in the night and visit in consultation	- - - - -	10.00
For rising in the night and advice at the physician's house	- - - - -	3.00 to 5.00
For advice at the physician's house, according to the importance of the case and the time occupied	- - - - -	1.00 to 10.00
For a letter of advice	- - - - -	5.00 to 10.00
For an opinion involving a question of law, in which a physician may be subpoenaed	- - - - -	10.00 to 50.00
For a post-mortem examination, in a case of legal investigation	- - - - -	20.00 to 50.00
For do. made at the request of the family or relations of the deceased	- - - - -	5.00 to 25.00
For a case of midwifery in the daytime	- - - - -	10.00 to 20.00
For do. if any part of the attendance be in the night	- - - - -	15.00 to 25.00
For capital operations, such as amputations of large limbs, lithotomy, lithotrity, trepanning, extirpation of large tumors, operation for cataract, &c.	- - - - -	50.00 to 200.00
For reducing luxations or fractures of small bones, for stitching recent wounds, opening large abscesses, and similar operations	- - - - -	5.00 to 10.00
For vaccine inoculation	- - - - -	2.00 to 5.00
For re-vaccination	- - - - -	1.00 to 3.00
It is recommended that in all cases of <i>gonorrhœa</i> and <i>syphilis</i> a retaining fee of from \$5.00 to \$10.00 be required in advance; the subsequent charges to be made as in ordinary cases of attendance or advice.		

* If by railroad, from 50 cents to \$1 per mile, according to the time saved to the practitioner.

† The night, in this table, is considered as beginning at 10 o'clock, P.M., and ending at 6 o'clock, A.M., or at sunrise when that is later than 6 o'clock, A.M.

There are other distinct charges for minor surgical operations, given in detail, which want of room prevents our printing. We trust our distant readers will not be deluded into supposing that the average collections of physicians here come anywhere near the aggregate which this table makes their charges assume on their books. Far from it. The grand total there recorded may make a very pretty picture, but alas! it is in the main a "dissolving view," the "stuff that dreams are made of," the basis for air castles, chateaux en Espagne. If our fee list is any aid to our correspondent as a chart to steer by, he is welcome to it; we hope it may help him. We confess that he has awakened in us something of the curiosity which he acknowledges. We should be glad to see in the journals of other places copies of their local fee lists.

THE following case illustrates the reparatory power of nature, and suggests a due degree of caution in the treatment of injuries involving the question of amputation.

MESSRS. EDITORS,—I examined, a few days since, the arm of John Sheen, a young Irishman, 19 years old, who, when he was 10 years old, had his left arm jammed between two railroad cars, within about four inches of his shoulder. More than two inches of the entire shaft of the humerus are gone at the seat of the injury. The muscles of the anterior and exterior sides of the limb appear to have been cut off by the accident. The muscles of the posterior, part of the interior, and very little of the exterior, are apparently serviceable. There are two long scars at the point of injury, one of them anterior and the other exterior. The arm is very much smaller at this point than anywhere else, but is nearly as long, large and fat as the other arm. The patient is quite fleshy. He can carry his arm backward, forward, and upward to his face rapidly, and his hand is quite strong. All below the injury is apparently as good as in the other arm. He cannot straighten out his arm, of course, for the want of bone and muscles anteriorly. The arm hangs dangling by his side, and yet is *very* useful. Numerous pieces of bone came away at the point of injury. He can put on and take off his coat as quickly as any one. When his coat is on, you see a slight projection of the upper part of the humerus.

The surgeons in Boston, where the accident occurred, who saw it, wished to amputate the arm, but his mother would not permit it to be done, and the result is a *very useful* arm. Judging from its appearance now, at the seat of the injury, I think no surgeon would have hesitated to advise amputation at the time of the accident, and yet it was a *very fortunate* thing for the patient that amputation was not permitted. This case may afford a useful hint to our army surgeons.

Portsmouth, N. H., Nov. 15th, 1861.

N. L. FOLSOM, M.D.

MESSRS. EDITORS,—I am glad to see the charge of dishonesty and untruthfulness made against the New American Cyclopædia in reference to the Monthyon prize, retracted by W. E. C. He, however, has committed another mistake about as bad, in supposing that the work of Dr. Rice was relied upon at all in the matter. While this work is referred to, and very properly, in points of fact which have become matters of history in regard to the ether controversy, any one will see, by referring to the article ANÆSTHETICS, in Vol. I., p. 506 (*corrected edition*), that the Cyclopædia expressly states that the Monthyon prize was awarded to Dr. Morton for "introducing ether into practice after the indications of Dr. Jackson."

Boston, November, 1861.

S. K., JR.

MASSACHUSETTS MEDICAL BENEVOLENT ASSOCIATION.—The members of this association held their annual meeting at their rooms in Temple Place on the 31st ult. In the absence of the President, Dr. John Homans, of this city, presided. The record of the Association for the past year was read by the Secretary, Dr. J. N. Borland, and accepted. The Treasurer, Dr. Francis Minot, reported that he had

received during the past year, chiefly from assessments, the sum of \$128, and interest amounting to \$68.05. The balance from last year's account was \$1,801.38. The whole amounting to \$1,997.43. The amount expended was 9.66, leaving a balance of \$1,987.77, which is chiefly invested in the Savings Banks—\$99 being in the U. S. Treasury Notes, and \$23.08 in cash, in the hands of the Treasurer.

The following gentlemen were chosen officers for the ensuing year:—Dr. Geo. Hayward, *President*; Dr. Aug. A. Gould, *Vice President*; Dr. J. N. Borland, *Secretary*; Dr. Francis Minot, *Treasurer*. Drs. Geo. H. Lyman, Wm. J. Dale, John Homans, George Hayward, Jr., and R. W. Hooper, of Boston, W. W. Wellington, of Cambridgeport, Anson Hooker, of East Cambridge, P. M. Crane, of East Boston, and B. E. Cotting, of Roxbury, were appointed *Trustees*.

NAVAL APPOINTMENTS FROM MASSACHUSETTS.—Of the forty new Assistant Surgeons required for the Navy, thirteen have been appointed from Massachusetts. The following are their names:—R. T. Edes, Chas. E. Stedman, H. M. Wells, W. C. Lyman, I. H. Hazelton, G. T. Shipley, Charles H. Perry, C. T. Hubbard, Edgar Holden, B. H. Kidder, J. H. Macomber, Samuel W. Abbott, Samuel N. Brayton.

MEDICAL INSTITUTION AT GUADALAJARA, MEXICO.—Dr. Carman, formerly Prof. of Materia Medica in the Medical Department of the University of the Pacific, now practising medicine at Mazatlan, furnishes to *The San Francisco Medical Press* an account of the Medical Institution located Guadalajara, Mexico, from which we reprint the following:—

"The school has seven professors, natives of Mexico, five of whom are graduates of the Parisian School of Medicine; the Faculty is composed of men of superior intelligence, and are capable of reflecting credit on their profession in any part of the world. The college building is a stately edifice, and in connection with it there is one of the most extensive hospitals on this continent. It is large and well ventilated, and capable of accommodating, in a comfortable manner, near 3000 patients. There are some 500 sick, at present, in the hospital, and everything is finely arranged for the benefit of the patients, every department bearing the marks of perfect order and system; so much so, that a visit to the institution is in the highest degree gratifying to the medical man. The hospital building was erected during the latter part of the last century by the Spaniards, but recently it has been renovated and enlarged, and greatly improved in its internal arrangement. It is in charge of Dr. Pablo Gutierrez, together with Drs. Rafael Jimenes Castro and Ramon Ochoa. Dr. Pablo Gutierrez is Surgeon-in-Chief."

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 16th, 1861.

DEATHS.

	Males.	Females	Total
Deaths during the week,	32	30	62
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.5	34.0	68.5
Average corrected to increased population, . . . . .	..	..	76.36
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	0	3	2	3	0	0	2	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Nov. 9th.

Mean height of Barometer,	29.696	Highest point of Thermometer,	61.0
Highest point of Barometer,	30.194	Lowest point of Thermometer,	35.0
Lowest point of Barometer,	29.476	General direction of Wind,	W.N.W.
Mean Temperature,	47.2	Am't of Rain (in inches)	1.37

DEATHS IN BOSTON for the week ending Saturday noon, November 16th, 62. Males, 32—Females, 30.—Accidents, 2—anaemia, 1—inflammation of the bowels, 1—disease of the brain, 1—inflammation of the brain, 1—consumption, 12—convulsions, 5—croup, 3—dropsy of the brain, 1—scarlet fever, 2—typhoid fever, 2—gastritis, 2—hemorrhage, 1—disease of the heart, 1—infantile disease, 3—intemperance, 2—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 3—old age, 4—puerperal disease, 1—suicide, 1—ulcer of stomach, 1—unknown, 2—whooping cough, 6.

Under 5 years of age, 23—between 5 and 20 years, 3—between 20 and 40 years, 17—between 40 and 60 years, 2—above 60 years, 10. Born in the United States, 37—Ireland, 20—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXV.

THURSDAY, NOVEMBER 28, 1861.

No. 17.

TWO CASES OF LEUCOCYTHEMIA, IN WHICH CRYSTALS FORMED
IN THE BLOOD AFTER ITS REMOVAL FROM THE BODY.

[Read before the Boston Society for Medical Improvement, November 11th, 1861, by CALVIN ELLIS, M.D.,
and communicated for the Boston Medical and Surgical Journal.]

IN THE BOSTON MEDICAL AND SURGICAL JOURNAL for Feb. 2d and 9th, 1860, there was reported a case of leucocythemia, in which crystals were found in the blood, and described by Dr. J. C. White. These were not noticed by Dr. Ellis at the time of the examination, and only several days after by Dr. White. It was then suspected that they might not form until some time after death, and this view has been confirmed by the following cases.

The first was that of a woman, 55 years of age, who had always been an invalid, subject to debility, dyspepsia and neuralgia. During the last year of her life she was under the care of Dr. Storer, and complained mostly of pain and fulness in the abdomen. There was a feeling of resistance in both hypochondria, and the liver was thought to be enlarged. She was feeble and anæmic, but never had hæmorrhage. She never menstruated, nor had any feelings which attend menstruation. Death was apparently caused by exhaustion, and occurred in May.

On examination, the heart was found filled with soft, recent, maroon-colored coagulum, resembling thick paint. This, under the microscope, was seen to contain a very large number of white corpuscles, with peculiar nuclei, like those described by Bennett and Virchow in connection with leucocythemia.

As the blood resembled that in which crystals had been previously found, it was preserved, in order to ascertain whether they might not form. It was not again examined until July 11th, when crystals were found in large numbers. The report of Dr. White in regard to them may be found at the close of the second case.

The spleen was three or four times as large as usual. The liver was also enlarged. The uterus was small, and its cavity obstructed just above the neck. Ovaries small. Other organs sufficiently healthy.

The second example was furnished by a remarkably strong, muscular man, a provision dealer, 24 years of age. About eighteen months before his death he received a severe blow in the epigastrium. When first seen by Dr. Dupee, six months after, in the summer of 1860, he was suffering from dyspepsia, and, after a few weeks, went to Maine, but returned to Boston and attended to his business during the autumn and winter. Two months before his death he was seen by Dr. Twitchell, of Keene, who discovered a tumor in the left hypochondrium, extending downward into the abdomen, but there was in the latter neither pain nor tenderness. Complained much of pain in the head, dizziness, and, occasionally, epistaxis. Anæmic, but not dropsical. No enlargement of the lymphatic glands was ever noticed. Some cough during the winter. Appetite "ravenous." Bowels regular. Without manifesting any other peculiar symptoms, he gradually lost flesh and strength, until death took place, July 10th, 1861.

Autopsy, five hours after death. The face was quite livid. Abdomen full and firm. The head was not examined. The pulmonary tissue appeared healthy, but, from the divided bloodvessels, there escaped thick, purplish or maroon-colored blood, like that which filled the cavities of the heart. Its color and consistence were those of thick paint, or the pulp of a softened spleen. The heart itself was quite large, but in other respects normal.

The liver was of a dark-brown color, and very large, weighing $13\frac{1}{2}$ pounds. The blood was of the same character as that previously described.

The spleen was very large, and weighed 9 pounds. The edge was deeply fissured, and some portions of the capsule were white, firm and thick. On incision, the cut surface presented the usual appearance.

The kidneys were very large, each being about six inches in length. The lumbar and mesenteric glands were somewhat enlarged. No change of Peyer's patches or the solitary glands.

On microscopic examination of the blood, it appeared to be composed almost entirely of white granular corpuscles, in some of which a nucleus could be seen, and after the addition of acetic acid nuclei appeared in others. On the following day, another examination was made, at 9 o'clock, A.M., with precisely the same result, but, at a later hour, Mr. Gibson, one of the surgical house-pupils at the Hospital, noticed crystals like those previously described. It now appearing very evident that the formation of these took place some time after death, the blood was sent to Dr. J. C. WHITE, together with that of the previous case, then very offensive. Dr. White furnished the following report:—

The specimens of leukæmic blood were sent but a few days before I left town. The hasty examination I was then able to make assured me that it was chemically and physically similar to a specimen I received from you in 1859, and the peculiar crystals, which I then described and called leukosin, were observed to be largely present. In addition to these, other crystalline bodies were noticed in

the blood, which was still comparatively fresh, such as I had never before seen, in the form of rosettes and of a reddish brown color.

On my return, the blood had become very putrid, and the forms last alluded to, together with the red and white corpuscles, had unfortunately disappeared. The leukosin, however, was unchanged, and indeed in a specimen of the blood, preserved by me, in which it was first discovered (now nearly three years ago), the crystals are to-day as sharp in outline as when first seen. I have nothing to add to what was at that time published in regard to their analysis. Since then they have been observed in leukæmic blood in Paris, and a description of them, given by MM. Chareot and Vulpian in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, 1860, proves their complete identity with those in our own cases.

Their constant occurrence in the blood of every case of leukæmia observed here since their discovery, seems to justify us in the conclusion that they are really characteristic of the disease, and may yet give us some insight into its true nature. It is probable that they do not exist ready formed in the blood, so long as it is of the temperature of the body and in motion within its vessels; and several hours have elapsed, I believe in every case, after its removal, before they have been observed. An analogous phenomenon is noticed in connection with the separation of crystals of uric acid and oxalate of lime from the urine. The microscope seldom reveals their presence in this fluid when first passed, and it is not until some but little understood chemical change or ferment has taken place in it, that the crystalline forms of these bodies are separated and become visible. Reasoning from analogy, then, it is fair to suppose that the crystals of leukosin, although not circulating as such in the vascular system during life, still exist in some soluble form, and require but some change in the mutual relation of the other elements of their mother fluid after death, perhaps a lower temperature only, to assume their definite shape.

Very truly yours,

JAMES C. WHITE.

The statement made by Dr. White, that these crystals have been found in every case of leucocythemia observed here since their discovery, is perfectly correct, but it should be understood that the blood in all these instances was of a uniform dark purple or maroon color, of the consistence of thick paint, and, except in the first case, showed no disposition to separate into yellow or purulent looking and dark-red portions. In this instance, even the same elements were found in the light-colored as in the dark portions of the blood.

SECRETION AND USES OF THE BILE.

BY W. G. BRUCE, A.M., M.D.

[Communicated for the Boston Medical and Surgical Journal.]

BEFORE the venous blood from the chylopoietic viscera is allowed to reach the heart, it passes through the liver, where a fluid, rich in carbon, is eliminated from it, called *bile*, which is poured into the duodenum. Many circumstances have contributed to make the bile hold a higher position in the process of digestion than I think it entitled to, as it has been supposed that the sole office of the liver was the secretion of bile, and the chief function of this, when secreted, must necessarily be to take a part in digestion proportionate to the size of the organ furnishing it.

But the investigations of many modern physiologists establish,

beyond doubt, that there are other and more important actions performed by the liver than the manufacture of bile, all of which tend to diminish the high estimation in which this fluid has been held as regards the process of intestinal digestion, either as a solvent, or as a mere excretor of noxious materials.

Various attempts have been made to estimate the quantity of bile secreted in a given time, under different circumstances as well as in different animals, with very varied results, and in truth we have no satisfactory knowledge on this point. In order to answer this question, fistulous openings have been made into the gall-bladder or ducts of various animals; and while all communication with the intestine was cut off by a ligature, the operator was enabled to collect the secretion at leisure. M. Blondot kept a dog in this condition five years, and many of those used by Drs. Bidder and Schmidt were killed after a two months' observation, while still in a viable state. The quantity which M. Blondot obtained in twenty-four hours from one of his dogs, was only $12\frac{1}{2}$ drachms, and assuming from the similarity of the food of the human species and that of the dog, that a proportionate amount of bile would be secreted for the weight of the body, he concluded that the average quantity poured into the human intestines in twenty-four hours, was from six to eight ounces. The investigations of others, however, have been much more satisfactory. Drs. Bidder and Schmidt performed a series of experiments upon a large number of animals under a variety of circumstances—during fasting, during repletion, on full diet, on low diet—and they found that the average amount secreted by the dog in twenty-four hours, to be from twelve to fourteen ounces. On this estimate, we secrete daily from three to four pounds, which is probably much nearer the amount than the estimate of M. Blondot, and it is altogether probable that even this is rather below than above the mark. It appears, also, from these experiments, that no relation existed between the size of the liver and the amount secreted. It might have been supposed that the greater the weight of the organ, the more productive would it have been; but, on the contrary, it was found that in the sheep experimented upon, the *smallest* livers gave the *greatest* quantity of bile, and in the cats quite regular ratios were obtained.

The bile is secreted from the blood of the vena porta; as the small size of the hepatic artery, compared with the large size of the gland, and the small degree in which it can participate in the formation of the extensive capillary plexus of the organ, evidently disqualify its contributing to the secreting process.

Bile is *first* found as a separated product in the minute canals or bile ducts. It is a thick, ropy fluid, of a greenish-yellow color, an acrid bitter taste, and a peculiar nauseous smell, with a specific gravity of 1.026 to 1.030. Its secretion appears to be continuous, but it is augmented or diminished according to the

stage of the digestion. It attains its maximum ten or twelve hours subsequent to a hearty meal; and from then until twenty-four hours after the meal, it gradually diminishes until it reaches its minimum, or the least quantity secreted, about two or three hours after eating. This is of the highest importance as regards the action of the bile in the process of digestion, for it is natural to conclude that it would be secreted in largest quantities at such times as it is most needed; and if its presence was necessary in the early part of the passage of the food through the digestive canal, it would be secreted in large quantities during active digestion. It however does not reach its maximum until digestion is nearly completed, or at least very far advanced, and hence it may be inferred that its main object is to subserve some secondary purpose, or rather to prevent any unnatural action which may be likely to obtain at that period.

It is found that the quantity is very much diminished or increased by the nature of the food, as the amount obtained from the cat, under a full flesh diet, was more than twice the quantity secreted while under an ordinary diet. Again, fatty food is found not only not to increase it, but the secretion materially diminishes under its use. It might be anticipated, that in the formation of a substance so rich in fat as the bile, it would be materially assisted by the copious use of fatty food; but experiments prove it otherwise, and it may be said that a diet of pure fat is, so far as regards the secretion of bile, analogous to a starving diet.

The color of the bile is dependent upon a variety of contingencies, as the greater concentration of the fluid bile in the gall-bladder, during retention in that organ, it oftentimes having been found to present from ten to twenty-five per cent. of solid matter, while the natural amount of solid matter in fresh-flowing bile is only from two to seven per cent. The peculiar quality of the food natural to the animal, causes a change in the color of the secretion; thus in carnivora it is of a yellow, ranging from a golden to a dark-yellow, and in herbivora it exhibits various hues of green. Another important agent in this action is the presence of oxygen. It has been ascertained that if a quantity of yellow bile be subjected to the action of oxygen, it very quickly becomes green; and if green bile be *deoxydized* by zinc, it again resumes its yellow color. Therefore it is very materially influenced by the amount of oxygen conveyed to the liver by the blood.

Bile, as it exists in the gall-bladder and intestines, is alkaline, probably from the admixture of a considerable quantity of mucus, as when that has been precipitated it is ascertained to be neutral, as is also the case when examined before the admixture of mucus. Acid bile is only formed by its partial decomposition, and hence it has been stated that fresh-flowing bile is neutral.

As regards the action of the bile upon the aliments or substances taken into the digestive canal, many conflicting opinions have

been presented, and although each has been supported by what was supposed to be sufficient proof, yet each in its turn has been doomed to an overthrow by a more successful hypothesis which followed. It has been taken for granted that bile was in some way capable of dissolving the food, and thus assisting in digestion; but how, or upon what particular kinds of material it produced its effects, was not known, and in fact it is only within a very few years past that *any* proof existed as to its performing this action. The oldest hypothesis is that advanced by Boerhaave, and contended for by some physiologists of the present day, which attributed to the bile the power of saturating the acids of the chyme with its alkali, and, although that may be to a certain extent correct, yet it is found by experiment that the chyme of the intestine is still acid, after the bile has been mixed with it, and it is well known that a very small quantity of free acid mixed with the bile is sufficient to destroy its alkalinity. This, however, takes place in the following manner: the alkali of the bile, being in combination with the fatty and resinous acids, when thrown into contact with the stronger acids of the intestine, as the lactic, hydrochloric, &c., unites with them, setting the biliary acids free, which communicate an acid reaction to the intestinal contents or chyme, and in this regard may the bile contribute to the neutralization of the free acids contained in the chyme.

It has been observed by Dr. Bidder, that the bile has no power, or at least but very slight, of dissolving albumen, even after many days' maceration. The following experiment demonstrates how small is its solvent power upon that form of albumen found in cheese, known as *caseine*:—Three portions of cheese were digested for thirty-four hours at 100° Fahr., one in pure water, another in water and bile, and a third in water and glychocolate of soda, when it was found that the portion mixed in the water and bile lost only eleven per cent. of its weight, while the other two had lost seventeen per cent.; showing that instead of the bile being a good solvent, it has even less power than pure water.

Upon a microscopical examination of the fæces of a dog, fed entirely on flesh, and in whom the ductus choledochus was tied, thus preventing the entrance of bile, it was found that they contained no traces of muscular fibre, but it had all been digested as readily and as perfectly without as with bile.

By experiment out of the body, it is found that neither starch nor albuminous substances are essentially changed, even when digested for a long time with fresh bile.

Haller first ascribed to the bile the property of dissolving fat. It is well known that the intestinal villi have the power of taking up this substance in large quantities, and the question arises, whether it requires any modification previous to its passage, and if so, is the bile requisite to make that modification. This seems to be answered in the affirmative by several experiments, and it is

affirmed by Frerich that the bile contributes, in association with the pancreatic juice, to the perfect disintegration of the fat, and thus to a great degree promotes its absorption. In a dog, in which the entrance of bile into the intestine was prevented by ligature, it was found that but a small quantity of fat was taken up, only about half an ounce during twenty-four hours; while a healthy, uninjured dog was, upon the same kind and quantity of food, found to absorb about ten times as much, or five ounces; which proves that although a small quantity of fat may be absorbed by the villi independently of the bile, yet its presence increased very materially its absorption, either by rendering it more susceptible of being taken up, or the membranes more suitable for its absorption.

Again, a very important action of bile on fleshy matters, which is of practical bearing as regards our health and comfort, is its *antiseptic* properties. It is found, in animals, that when no bile is allowed to flow into the intestines, the contents undergo rapid decomposition, accompanied with the secretion or formation of fœtid gases, and fæces smelling like carrion. The same condition is sometimes observed in patients with jaundice; and although it is not attended with any disastrous or fatal consequences, yet it is excessively distressing. In animals fed solely on starchy food, no decomposition took place, the fæces being sour rather than putrid. Hence, the bile acts on albuminous substances to prevent decomposition, and preserves them in that condition in which they may be the more readily absorbed by the villi of the intestines. Again, the *water* which is contained in the bile acts as a solvent upon the soluble portion of the chyme, rendering it capable of transmission through the membranes. This matter keeps up a continuous circulation through the liver and intestines, performing on its route a double office, according as it flows from the liver to the intestines, or from the intestines to the liver. In either case it passes a filter, which is permeable to only a particular class of substances.

Prout is of the opinion that bile acts upon the proteine compounds in a manner by which they are converted into albumen, a theory apparently supported by the experiment of Frerich, that when filtered chyle is mixed with a quantity of bile, it will coagulate on the application of heat. Prof. Lehmann, however, was unable to obtain a similar result, although he performed a number of like experiments.

Some physiologists assert that the bile is a mere excrement, or *used-up matter*, which is for the welfare of the body to be got rid of as soon as possible. This, however, is rendered untenable by the manner in which it is carried out. If it were simply effete material, it would evidently be taken from the body by the shortest possible course, and not be allowed to traverse such an extent of surface on which it would act as a foreign body, and thus occasion an unnecessary risk. The making of a biliary fistula would not

only *not* prove an *injury*, but would be a decided *benefit*, to animals; but such is not found to be the case. That the bile is partly an excretion is probable, and this is undoubtedly true as regards all other secretions. It has been observed by Boerhaave, that "almost the whole mass of the fluid secreted by the liver, is again drunk up by the absorbing veins from the alimentary and faecal contents before they arrive at the anus."

It may be asked, if the bile is so extensively absorbed by the blood, why is it that it is never found in that fluid, as, from the most careful examinations, no trace of re-absorbed bile could be detected either in the chyle or portal blood? Or why is it necessary that it be formed at all, as its short circuit from the liver to the intestines, and thence directly back into the liver, may at first sight seem objectless and superfluous?

As regards the *first*, we may say that the bile, soon after its passage into the intestines, undergoes chemical decomposition, a portion passing off as effete material, but the larger part, as its soluble salts and cholic acid, passing directly into the blood, not as *bile*, but as *constituents* of that fluid. But if we have regard to the necessity of its formation, or to the fact that it seems useless for a substance to be formed from the blood in order to be again taken up by that fluid, we can only reply that substances are repeatedly eliminated by the action of all the other glands of the body, and all taken up again by the vessels, and we are far from being able to comprehend the aims of nature or her mode of arrangement.

This we see is the case as regards chloride of sodium, iodide of potassium, the salts of ammonia, &c.; and the re-absorption of chloric acid is no more unnatural than that of any other material whose particular action and use are alike inexplicable.

The bile may be said to perform the following duties, which from the present state of our knowledge is all that can be attributed to its action:—

1. To remove a small amount of effete material in common with the action of all other secretions.
2. To prevent the too rapid decomposition of albuminous material.
3. To assist in the passage of oily substances through the intestinal membranes.

Barnstable, Mass., 1861.

STRICTURE OF THE COLON.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I send you the following case. Oct. 23d, 1861, I was called in consultation with Drs. Vance and Sanger. Patient was a man about 70 years of age; had been troubled with severe

cough for several months previously. Had also had several attacks of severe colic—one of which, nearly terminated his life; but he finally recovered, and was apparently as well as before. When we arrived, we found him suffering severe lancinating pain in the region of the sixth and seventh ribs of the left side, about six inches from the median line; the ribs protruded, probably two inches beyond the natural plane, forming, apparently, a large tumor or abscess. Percussion produced the tympanitic sound, and auscultation developed a humid crackle. The pain was somewhat relieved by steady pressure. We were told that the swelling had appeared about twelve hours before we were summoned, but the result shows that such could not have been the fact. Auscultation over the right lung revealed almost complete hepatisation; over the left, the respiratory murmur was distinct in the upper lobe. We ordered anodyne doses of sulphate of morphia, and left him, convinced that death must soon supervene. This took place about twenty-four hours after.

The autopsy developed firm adhesion of the right pleura to the ribs, also partial adhesions of the left. The substance of the lung was found completely infiltrated with miliary tubercle, but softening had not taken place. In the region of the tumor I have described, we found the diaphragm raised two or three inches from its normal position, pushing the apex of the lung upward and backward, by a coil of the transverse colon. It had the appearance of having been dragged along from the right side till it formed a sort of sigmoid flexure. In the centre of the flexure we found a stricture of the intestine, leaving a passage scarcely one half an inch in diameter, each side of it; the intestine was distended enormously by gas. The two orifices of the stomach were nearly vertical with each other; liver normal; other organs healthy.

Newark, Ill., Nov. 14th, 1861.

H. C. ROBBINS, M.D.

A CASE OF HERMAPHRODITISM.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—In the examination of recruits for the United States Naval Service, this morning, a very interesting specimen presented himself for admission. He combines, in a most remarkable manner, a perfect female form with male generative organs, though in a very embryotic condition. Perhaps no better idea can be conveyed of him, than by giving a general outline of his features.

He is a native of Ireland, and now 22 years of age. He has followed the sea for the last ten or twelve years. He is 5½ feet in height, with blue eyes, light hair, and light complexion. His usual weight is 150 pounds. His voice is of a decidedly feminine character. He has no beard, and no hair, except upon his head

and a few short scattering appendages around his rudimentary penis. His hands, arms and shoulders have the form, plumpness, and in every way the appearance of a well-developed female. His breasts are full, round, soft, and beautiful, with well-developed nipple and areolæ, and identical with the breast of a virgin. The curves of the thigh, so characteristic of the female, are well shown upon this truly wonderful form. His legs, feet and body all conform to that of a female. Upon a superficial observation of the genital organs, they were found to resemble those of a female, with a greatly enlarged clitoris. But upon more minute examination, we find the apparent external labia to consist of two folds of a diminutive scrotum, placed in apposition to each other. The raphe is distinctly marked. The testicles, which are about the size of a large pea, are situated high up in the region of the external rings, a little in front, and beneath them. The penis is about one inch and a half in length, with corresponding circumference. The prepuce adheres to the glans penis. He represents that he is capable of coition with females, and that his feelings sometimes prompt him to indulge. His penis is capable of erection, and, he states, of emission of semen.

These, I believe, are the general outlines of an individual who to us is very interesting. Hoping that this brief communication may be of interest to some of your readers, I have thought it best to report the case. Yours, &c., J. W. BRAGG,

U. S. Ship Ohio, Boston Harbor,
Nov. 16th, 1861.

Ass't. Surg. U. S. N.

Bibliographical Notices.

Placenta Prævia ; its History and Treatment. By WILLIAM READ, M.D., Member of the Mass. Medical Society, of the Boston Medical Association, of the Boston Society for Medical Improvement, &c. &c. Philadelphia: J. B. Lippincott & Co. 1861. 8vo. Pp. 340.

SINCE Dr. Dalton's Physiology, we have seen no American medical book that has given us such satisfaction, nay, we should say which excites our pride so much, as the one now before us. And yet it is not a pleasant book; it is not one you can pick up and read and understand at will and for pastime. In fact, it is a book that one must take to as a study or not at all. It is what some would call "a dry book," and a good many "a heavy book," and it may be both without any disparagement to it. The subject of it does not fall within the few fanciful lines of medical science, nor does it present a field where the imagination has any right to play. Therefore, if the book be dry, it is properly so, and because the author has in the spread of the subject before him apparently felt he had too much fact to deploy to allow any room for rhetoric; and if it be heavy, it is because it is packed so full of fact. In truth, we cannot at this moment recall a monograph, even among those remarkable German ones (written gene-

rally in Latin), that shows more result of examination into the writings and opinions of others ; a fairer exposition of these opinions in judiciously selected quotations ; closer reasoning by the author himself upon them and upon his own observations, or a more concise exposition of his deductions.

These remarks, by all rule, ought to have been reserved for the close of our review, and have been used, as is usually the case, in winding it up ; but what we have asserted so impressed itself upon us at the outset, and continued to enforce itself so much upon us as we advanced, that we could not avoid stating it.

The first Chapter, of 23 pages, is given to the medical history of the accident, in which the views upon it of the most prominent writers, from Hippocrates down, are concisely stated, and the various errors they fell into in attempting to explain the cause, and the precise nature of it, pointed out. In this we are sorry to see a charge brought against Dr. Robt. Lee of unfairness in his quotations from Mauriceau, while commenting upon the views of the latter. We must confess to a partiality for Dr. Lee, on account of the stand he has so firmly taken against some of the notions about uterine disease, by which specialists in this line have been of late so led away, but we have to confess that the charge of Dr. Read seems fairly sustained.

The next Chapter, we think, is wrongly headed "How Produced." This question is not here fairly entered into, nor could it be until the next Chapter, on the Physiology of the subject, is disposed of, and more particularly the series of changes in the development of the lower half of the uterus during pregnancy is explained. The simple gravitation of the ovum towards the *os uteri*, on account of the upright posture of the human female, can scarcely be called in itself a cause. Were it so, the accident should be more frequent, instead of occurring, as the author shows, only about once in 1200 cases.

Chap. III. is by far the most interesting of any in the book, if we consider any single one by itself. It is devoted to the physiology of the subject, and we cannot but wish that the author, instead of continuing here his conciseness of style, had given himself more space and more freedom and fulness of expression—more tether in every direction. This we consider absolutely necessary in entertaining the question of the nature of the union, or rather the method of adaptation of the placenta to the uterus. It will be at once apprehended by the reader, that this is not an outside or offside question, but one of immediate practical importance—a clear and truthful solution of which determines our resort in many cases to this or to that method of treatment, at a moment when the life of our patient depends upon prompt and proper action. It is one that must be answered before we can tell whence comes the hæmorrhage in placenta prævia, and at what time we ought to dread it and how we ought to meet it. To properly appreciate this question, and the amount of discussion that has grown out of it, we should follow the author through his various researches, and see the number of strong names he quotes on both sides—or rather, we should say, in favor of the different explanations that have been presented for its solution. We have not, we regret to say, room to do this. We can only give, as an earnest of what is afforded us by the labors of Dr. Read, that he quotes the opinions on this subject, of forty authors, besides referring to many others incidentally. Of all these, however, the one that interests us most both in himself and views in-

dividually, and in their relation, or, rather, in their opposition to Dr. Read's views, is Dr. Dalton. He is not only the last in the field of physiology, but his course through it, and his present stand upon it, has been and is now striking and honorable. Acquainting himself thoroughly with what has been hitherto attempted and done, examining carefully and minutely the labors of those who have gone before him, or are now at work around him, he has nevertheless not permitted any one to ease his shoulders of the burden, or his hand of labor, but has patiently set himself down to verify all he has been told and assured of by others, through the cunning of his own eyes, the sharpness of his own sight, and the clearness of his own brain. And yet, so far as placenta and uteri and their adaptation to each other are concerned, Dr. Read seems to have gone to work as thoroughly, as free from bias, and with as much zeal and devotion, as Dr. Dalton, and still they differ in their results. We regret that space is not allowed us to lay the controverted points fully and fairly before the reader. He could only understand the subject by a full exposition of both sides—a statement of what is claimed by each, and the grounds, experimental or rational, upon which the claim is made. We must feel, however, that when two such men, equally zealous in the cause of science, come together, even in opposition, the true and real state of the case cannot much longer be left a controversy, in a matter of physical fact.

Chapter IV. is given to "Special Causes of Hæmorrhage," and under this head several very interesting questions are discussed, as more or less involved in the answer to the chief one:—The separation of the placenta from the uterus—the normal situation of the placenta upon the uterine walls—the period and rate of the progressive increase of the placenta, and the relative size and weight of the placenta to the child. Besides having, as we have just said, a value as a cause of hæmorrhage, and a mutual bearing upon each other in exhibiting such cause, each of these is in itself a physiological problem of much interest, and is described as befits it. The error of the prevailing notion that the normal position of the placenta is at the fundus of the uterus, is shown clearly by the instance of over 700 cases. In 100 of these, by Von Ritgen, the placenta was within two inches of the os uteri in 49, and Coombe shows it was "in the vicinity" in 96 out of 100. The relative weight of the placenta at different periods of foetal life, and its comparative weight with that of the child, is illustrated by over 400 observations. The facts being thus carefully arrayed, 18 pages are devoted to an estimate of the proper value of them, in elucidating the question proposed.

The preliminary questions being disposed of, the treatment of placenta prævia is taken up. The subject is approached, as every other in the book has been, with a clear perception of its importance, and with a diligent search for and careful marshalling of facts bearing upon it. To give some idea of what the author has done under the latter head, we may state that he exhibits 956 cases, arranged in nine tables. Each of these tables is afterwards separated, analyzed, and the individual cases it contains classified under new characteristics and fresh aspects. The mechanical work, so to call it, of this part of the book is immense; the simple sorting out and arranging of the cases and the details connected with them—"pigeon-holing" each under its appropriate head and in its proper column—this by itself is no slight thing. But beyond this we find a very nice and most careful analysis, in which the true

value of each case is ascertained, and the case set forth as an example or illustration of the treatment to be pursued under this or that modifying circumstance. Of course, it is wholly impossible to make a quotation here, and, without one or more, we cannot hope to give the reader a fair idea of this part of the work. The results, however, at which the author has arrived are given us in the last four pages, where they are classed under eleven heads. Of these we may note as most important the 2d, which says, "The danger to the mother is less when the os uteri is completely covered than when a portion only is involved in the attachment of the placenta; and least of all when the attachment becomes nearly or quite central with reference to the os."

The 3d looks to the influence of the *condition* of the mother. It is not the amount of blood lost, but how the woman bears it.

The 5th says, "The danger to the mother is materially increased by artificial delivery;" but, he adds, this is not from the operation so much as from the remedy being resorted to often *in extremis*. In view of this, the 6th conclusion advises resort to interference before exhaustion is attained. And this accords fully with what experience has taught us in our own practice, and in those cases we have been called to in consultation in this dreadful accident. The 9th paragraph, expressive of a prudent distrust of the tampon, except under certain circumstances, we are very glad to see. We have seen some fatalities, and known of several very narrow escapes, from misplaced confidence in this mode of treatment.

The last paragraph advises that, where there is great exhaustion, and turning is resorted to, "after the feet have been brought down, the body of the child should be left undelivered until the uterus has been aroused to contract." A most prudent precaution in using version under any necessity.

We have thus taken a brief survey of a book which we feel cannot fairly be judged in this way. Indeed, many might read it, and yet have very little idea of the labor bestowed upon it. It is not labor that shows, but our experience in the same line, though to a far less extent, enables us to appreciate the patience and perseverance, continued day after day and month after month, by which Dr. Read has succeeded in piling up around him, and for each purpose as he wanted it, such a mass of material, and then sorting out, analyzing and arranging it as it now presents itself to the reader.

The faults of the book—that is, the faults for one of our habits and liking in our reading—are those we have mentioned at the beginning of this notice. The author has striven, and with perfect success, to pack the fullest number of authorities and the largest amount of fact in the smallest possible space. To a certain extent this is highly commendable—a great virtue; and the errors of most medical writers we feel and are sorry to assert are far on the other side. Diffuseness, carelessness of expression, unsupported assertion and statement of unimportant fact, interwoven with highly unnecessary display of rhetoric, are much oftener fair causes of complaint against the monographs of the present day. And it is possibly on account of being obliged to accommodate ourselves to many such faults, that when finding one, the author of which discards all that is adventitious and ties us down to investigation and proof as rigidly bare as that of a mathematical proposition, we feel a desire to be eased up occasionally and helped

along, and to have the road made pleasant to us. But we cannot complain greatly when the resemblance to the problem in mathematics is carried out by the result, as in the case of Dr. Read's book, where this is almost as conclusive and final.

W. E. C.

Fiske Fund Prize Essay on the Morbid Effects of the Retention in the Blood of the Elements of the Urinary Secretion. By WILLIAM WALLACE MORLAND, M.D., Member of the Boston Society for Medical Improvement: one of the attending Surgeons at the Central Office of the Boston Dispensary, &c.; being the Dissertation to which the Fiske Fund Prize was awarded, July 11, 1860. Philadelphia: Blanchard & Lea. 1861. 8vo. pp. 83.

THIS is a treatise on a subject which has of late received much attention. The author, who had already achieved reputation by his work on the Urinary Organs, has shown his usual care and method in the management of his subject, and has given to the profession the best essay on this branch of pathology with which we are acquainted. It will be noticed, that among the great variety of constituents of which the urine consists, the number is extremely limited of those that seem to bear upon disease. In fact, urea and uric acid are the only ones, the retention of which, observation thus far appears to have connected with serious pathological changes. The question as to the *materies morbi* of rheumatism is here discussed, and the various opinions of the later pathologists ably summed up. It appears that while there are still those who incline to the lactic acid theory, there are others, and those among the more recent observers, who refer the disease to an excess of uric acid. Among the latter, are Drs. Barlow, Bennett, Copland and Thudichum. The present theory of Dr. Bennett with regard to gout and rheumatism, "that they are both connected with an increase of lithic acid in the blood, this acid being in the former dependent upon excess of the primary, and in the latter upon excess of the secondary digestion, is certainly a plausible one, but so far as it relates to rheumatism is not entirely satisfactory. As our author remarks, the pathology of this disease is by no means yet settled, and until it be, the relation it bears to gout must remain an unsolved problem.

On the subject of urea and uric acid, the essay is full and clear; and with regard to the other urinary constituents, everything bearing upon their relation to disease has been carefully considered. The obligations of the profession are due to Dr. Morland for publishing his essay in a separate form, and thus bringing it within the reach of every practising physician.

Army Medical Intelligence.

[From our Special Correspondent.]

WASHINGTON, D. C., Nov. 23, 1861.

MESSRS. EDITORS,—I am able, sooner than I expected, to resume my series of cases of army surgery and medicine.

The case of gun-shot wound of the arm and leg, of which I wrote you a short time since, has been discharged cured. Complete flexion

of the arm and leg was the result, and, with the exception of two huge cicatrices, he is as well as before the wounds. The case of gunshot wound of the rectum still remains in the Hospital, but is gradually improving, each day bringing a firmer step and a brighter look to the patient.

My third case is that of a government teamster, A. McW., aged 27 years. On the morning of August 28, 1861, he was brought into the Hospital with terrible distension of the bladder, and in excessive agony. An instrument was used, but to no purpose, the urethra being firmly closed. Hot fomentations and hot baths failing to afford the least relief, an anæsthetic was administered, and perineal section was performed. The operation occupied *three minutes*. A No. 8 steel bougie was introduced, and left, but during the hour the patient, in his semi-stupor, pulled the instrument out, which was again introduced and left in until Aug. 31st, when it was removed.

Sept. 3d.—No. 1 bougie could be passed into the bladder, but with much labor and pain. This, however, was done, and on September 6th, Nos. 3, 4 and 5 were passed. No bleeding followed. Sept. 10th, a No. 8 was passed. A little bleeding followed. The patient now became excessively annoyed by being obliged to pass his urine *thirty-five times* and upward during the day. The new urethra evidently had formed, and was granulating finely. Sept. 11th, one ounce of tepid water, with a drachm of sweet oil, was injected into the bladder, and on the 13th four ounces of a lotion of lead and opium, with a little oil, was injected. This operation was repeated on the 15th, and the result on the 17th was that the patient passed urine but *nine times* during the twenty-four hours. Here was a marked and decided improvement, consequent upon the simple remedy of injecting the bladder. And here let me take occasion to say that I have seen no less than seven cases completely *cured* by this simple yet most beneficial treatment. The patient got along finely till Oct. 6th, when a No. 12 bougie could be introduced into the bladder with ease. But a new trouble now arose. We found that in addition to his having had gonorrhœa three months previous to admittance, he had also had syphilis. His throat became sore, a large bubo appeared in the right groin, and pains in the limbs tortured him by day and night. His treatment for this consisted of potass. iodid., 3iij. ; tinct. cinch. co., ℥iv. M. Mag. coch. ter die. Also, ol. morrhue and whiskey daily. A No. 12 bougie is introduced every third day without difficulty.

Oct. 19th.—Throat and limbs better, but syphilitic iritis is present. Large nodes appear over the whole surface of both tibiæ. He now has plain diet, and a fumigation of cinnabar gr. xiii. daily succeeds admirably.

Oct. 31st.—Cinnabar has produced an effect on the gums and mouth, and has been discontinued, but the nodes are much less in size and pain, and the iritis has entirely disappeared. His water passes in a steady stream, and the bubo is still very large, but hard and painful.

Nov. 17th.—Patient discharged. Passes urine as in health. Stricture entirely cured. Bubo opened and healed. Nodes less painful. Throat well, and patient is strong and able to resume his labors. H.

Selections from Medical Journals.

PARACENTESIS OF THE STOMACH PRACTISED WITH SUCCESS IN CASES OF ACUTE TYMPANITIS. BY DR. OLIVIERI.—We translate from the *Gazette des Hôpitaux*, where it is quoted from the *Gazette Médicale de Lyon*, the following article :—

The disease for which M. Olivieri has employed paracentesis of the stomach is a special form of tympanitis which he has seen with considerable frequency in Bolivia, at Cochamba, where for three years he has held the place of principal physician to the hospital San-Juan-de-Dioz.

The attack of this disorder, which always carries off the patient in twenty-four or thirty hours unless proper treatment is employed, is always sudden.—The belly from the first, says Dr. Olivieri, is hard, tense and full, at first unequal, afterwards uniform. On percussion, it sounds like a drum. The patient feels a continual desire to raise wind. There is obstinate constipation, the small pulse characteristic of grave abdominal disease, extreme difficulty of breathing, which increases every moment, face pale and hippocratic; the excessive size of the belly increases the dyspnœa, and a suffocating anxiety precedes death by some hours.

Warned by two fatal cases of the insufficiency of the treatment usually employed, M. Olivieri had recourse, in a third case, to paracentesis, made by means of an ordinary trochar in the middle of a line drawn from the umbilicus to the xyphoid cartilage. This patient died, and the autopsy gave M. Olivieri an opportunity to see that none of the contents of the stomach had escaped into the abdominal cavity. The stomach was so distended that it reached down to the bladder (this meteorism was subsequent to the operation); it contained a great quantity of fetid gas, and more than two quarts of a frothy liquid in an advanced stage of fermentation. The whole intestinal tube was also distended with gas.

In all subsequent cases, M. Olivieri had recourse, at the commencement of the attack, to paracentesis, followed by energetic purgatives. Out of twenty cases, eight were perfectly cured in about three weeks, without the occurrence in any of them of inflammatory symptoms of any importance. The others died, says the author, because they were brought to the hospital in the last stages of the disease.

The etiology of this disease is curious. M. Olivieri has only seen it in Bolivia and among the natives, whose food is almost exclusively vegetable (maize, potatoes and cocoa), and who use in excess *chica*, a liquor obtained by the fermentation of maize in water. It often happens that the process of fermentation is not complete at the time when they drink the *chica*; it is then continued in the stomach, where it is favored also by the presence of a large quantity of vegetable matter, and in this process a large quantity of gas is evolved, which distends the stomach and intestines. A form of tympanitis is the result, very similar to that which is well known in the bovine race.

We will add, that perhaps the early use of emetics, and subsequently of powdered charcoal as an absorbent of the gas, might have obviated the necessity of employing paracentesis. We translate the above on account of the peculiarity of the disease and the impunity with which the stomach was punctured in so many instances.

REPRODUCTION OF BONE.—Dr. Cooper, the Editor of the *San Francisco Medical Press*, after quoting a case in which the right side of the inferior maxillary bone was almost entirely restored, after having been exsected, together with the articular condyle, remarks as follows upon this remarkable effort of nature :—

The recorded cases in which reproduction of the bone has taken place are rapidly accumulating. It would appear that surgeons have lost nearly all their former fear of there being a want of reproductive power sufficient for the replac-

ing of bone when lost. But practitioners were very slow in adopting this opinion, until the evidence became overwhelming, though it would be difficult to tell why they were so slow in believing. Reasoning *a priori*, why should a physiologist hesitate to believe that lost bone would be readily reproduced?

It is a well-known law in physiology that, with few exceptions, nature tends to reproduce the same substance as that lost, differing only slightly in texture, let the substance be lost where it may. Thus, when muscle is lost to any reasonable extent, it will be reproduced, not with the same muscular contractility, but it will always have a little more of tendon-like hardness about it. Tendon and ligament are both readily reproduced the same as the original, except both are harder. Cartilage is sometimes reproduced in young children as cartilage of more than ordinary hardness, but in after years it is reproduced as bone. When bone itself is reproduced, it is still harder than the bone occupying its place before. It is, in fact, of almost ivory hardness, in many instances. When it embraces the articular extremities, we often find the ligaments and synovial membranes attached directly to the bony structure, instead of the cartilaginous envelope found in the natural state. All the softer structures tend to bone in old age, and, even in early life, bone is often found where none existed, as the result of morbid action. And, occasionally, the same thing occurs where there is no diseased action, the formation of bone, in such cases, being the result of much use. *Example*—The sesamoid bones, formed in the tendons of the great toes, where there is no periosteum to aid in their formation.

Reasoning from these premises, we early adopted the practice of taking out whole sections of the long bones, instead of amputating, even in the most extensive diseases of this structure, especially when occurring in bones of the fore-arm and leg. Even in diseases of the femur and humerus, we have, in several instances, removed entire sections, with the most happy results, a reproduction taking place with very little shortening of the limb. But, in all these cases, the periosteum was preserved, and where this substance can be left, we would not hesitate to remove the entire body of either of these bones, with the fullest confidence in the efficiency of nature in reproducing the requisite amount of bone. This often occurs when the periosteum is thickened to four or six times its natural condition, and the case terminates well, thus showing that an unhealthy periosteum is capable of producing healthy bone.

This we have noticed in many instances, and it has been verified positively, in one case, in which the abnormally thickened periosteum had reproduced healthy bone, and had itself resumed a healthy condition, under the greatest possible disadvantages. It is the case of James Gilmore, with which many of our medical readers of this city are familiar. Five inches of the lower end of the femur, including the condyles, were removed. The periosteum was about half an inch in thickness, and had but slight attachments to the bone, even at the point of insertion of the abductor magnus muscle, so that it was readily detached from the bone, as far up as the disease continued.

The limb being kept extended, the bone was rapidly reproduced, although, owing to a vitiated state of the constitution, the tibia and fibula became diseased, and, in twelve months after the operation, we were compelled to amputate the limb, purulent matter having been burrowing among nearly all the muscles of the thigh, until hectic set in, threatening a fatal termination. Notwithstanding purulent matter was burrowing all around the newly forming bone, it was fully developed, and as healthy as any bone, and of unusual solidity. The specimen is now in the Pacific Clinical Infirmary, where medical gentlemen are respectfully invited to call and see it. The reproduced lateral capsular and crucial ligaments are pretty well developed, and are adherent to the bony structures, in their usual places, though no part of the upper extremity of the tibia is more than a thin shell for several inches, the interior being completely disorganized.

From the favorable results of many similar cases in which an amputation had not to be performed, but where the periosteum was found thickened in the same manner, and the patient afterwards recovered completely, we are convinced that the periosteum will, generally, become healthy after the excision of the diseased bone. The change of action of the periosteum, produced by the operation, will often, and, perhaps, generally, be sufficient to restore it to a healthy condition.

These remarks have been lengthened to a greater extent than was at first intended, but the importance of the subject is our apology. The entire subject of the reproduction of bone is in its infancy. Surgeons are just beginning to awaken to its importance. Much good will result from it, and those in active practice should always publish the results of their experience upon the subject.

PHYSIOLOGICAL ACTION OF CERTAIN REMEDIES UPON THE HEART.—The following is an extract from the letter of a Paris Correspondent to the *London Lancet*.

An interesting communication was made to the Academy of Sciences at its last meeting, by MM. Dybrowski and Pelikan, relative to the mode of action of certain poisons upon the heart. The experiments were made upon frogs, and the poisons (upas antiar, tanghinia venenifera, digitalis, and green hellebore) were either administered by the mouth or inserted under the skin in various parts. The results were constantly the same: the heart's action was arrested, although the nervous irritability and voluntary muscular power of the animal persisted for a considerable time. The first effect of these poisons was in all cases the same—namely, that of paralyzing the heart—whether inserted under the skin or given by the mouth. The average duration of the heart's action after the exhibition of the poison was, in the case of the upas, tanghinia, and hellebore, ten minutes; and in that of the digitaline, from ten to twenty. The action of the ventricle in the frog was invariably found to be arrested in systole; it was strongly contracted, pale, and quite empty, whilst the auricle was distended and gorged with blood. The contractions of the heart were sometimes accelerated at the commencement of the experiment, at other times they were less frequent from the beginning. The paralysis, or rather arrest of motion, in the case of the ventricle is sudden after a certain period in the diminution of the pulsations; that of the auricle is gradual and almost imperceptible—its contractions outliving those of the ventricle by some minutes. MM. Dybrowski and Pelikan have proved by experiment that these poisons exercise their deleterious influence upon the heart independently of the cerebro-spinal system, and that in those animals in which the medulla oblongata and pneumogastric nerves have been previously destroyed or divided, the toxic effects of these agents were equally manifest. They therefore consider that the action of these poisons is due to a special influence upon the nervous elements of the heart, or else upon two systems of nervous apparatus—the one presiding over the movements of the heart, the other possessing the office of regulating or diminishing these movements.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 28, 1861.

WE have received a communication from a highly esteemed correspondent, inquiring whether we agree with the opinions expressed in a recent notice published in our pages of Dr. C. T. Jackson's book on Etherization; and declaring that silence on our part must imply that we give the weight of the authority of the JOURNAL to Dr. Jackson's side of the controversy. Now we had not supposed that anything we might have said or left unsaid on this vexed question could awaken sufficient interest to revive a controversy which, it was to be presumed, had long ago died a natural death. We took it for granted that the question as to the merits of the two claimants to the discovery of the anæsthetic properties of ether, had long been settled in the mind of every physician in the land, and that again to stir up the wa-

ters of strife after so long a period of repose, would require a longer stick than we flattered ourselves capable of handling. It is true, that a perfect accordance of opinion on this subject may not exist, but we have little faith that such ever will. There are a thousand circumstances that influence the mind in the decision of such a question, and men equally honest, and equally wise, will differ in matters of far higher importance than this upon which so much has been said and written. We do not, therefore, see why the opinion incidentally expressed in the notice of the book above referred to, should be the means of calling forth remark. So far as ourselves are concerned, we do not conceive that the opinion of the Editors on this subject can have any more weight than that of the same number of the profession not associated with the JOURNAL, and we therefore do not think it worth while to launch anew into this sea of doubts and contradictory statements by its proclamation at this time. We will merely say that a book notice, signed by the initials of the author, does not in our judgment imply coincidence of opinion on the part of the Editors. That such notices should contain opinions differing even widely from those, it may be, of a majority of the profession, should not, we think, exclude them, unless they contain statements manifestly false.

MESSRS. EDITORS,—In your issue of Nov. 7th, is a communication signed “Radical,” in which the writer states that *the most able physicians, accoucheurs and surgeons of Boston do advise, meet and consult with well-known homœopathists*. The charge is startling, and the information is new to very many of the readers of the JOURNAL, and of the Fellows of the Mass. Medical Society; and, if true, is serious and should be looked up. It is in violation of the eighth by-law, which says, “And it shall be disreputable for any Fellow to advise or consult with any such irregular practitioner, or in any way to abet or assist him as a practitioner of medicine or surgery.”

The matter is serious. Our State Society suffers in the estimation of the profession elsewhere, because it retains on its list of members the names of homœopathic practitioners. The fact that we are crippled in action by our legal charter, is not so well known. But if *Boston* physicians and surgeons, men, it is to be presumed, standing high in the profession, do thus violate our Society's laws and the laws of the American Medical Association, they bring additional disrepute upon the profession of the State, and a special stain upon the profession of Boston.

It is presumed that your correspondent, “Radical,” has positive knowledge, or that he would not venture such an assertion. It is, then, his duty to make complaint, according to By-Law 31 of the Mass. Medical Society, and have offenders duly arraigned. The very positive and public nature of his allegation absolutely requires it, that the innocent among the city practitioners may be relieved of the imputation which now rests upon them, and the profession at large be vindicated from the reproach which it must otherwise suffer. JUSTITIA.

COMMENCEMENT AT BERKSHIRE MEDICAL INSTITUTION.—We have received a letter from a correspondent, “Solon,” from which we learn that Tuesday, the 19th, was Commencement day at this Institution. The writer speaks with great enthusiasm of the natural beauties of Pittsfield, and also in very complimentary terms of the new Medical College. This has been built, he states, at a cost of some \$30,000, and

is admirably located. Its exterior design and internal arrangements seem to be everything which could be wished. The graduating class numbered fifteen, and passed the ordeal of a rigid examination in a manner which reflected the highest credit upon themselves and their teachers.

The Alumni celebrated their anniversary by listening to an address, by whom is not stated. The graduates were also addressed in a very able manner by Prof. Chadbourn, of Williams College. The exercises of the day concluded with a dinner at the Berkshire Hotel, of which the Faculty, the Trustees, the graduates, the members of the Berkshire Medical Society, and a large number of invited guests partook. The festival throughout appears to have been most agreeable and satisfactory to all concerned.

WE have received from the publisher, Mr. W. A. Townsend, of New York, the Physician's Hand-book of Practice, by Dr. William Elmer. This little annual is now too well known to need any special commendation from us. In addition to its convenience as a memorandum book of daily practice, the amount of valuable information it contains in such a small compass is really remarkable.

DEATHS OF DISTINGUISHED PHYSICIANS.—Among the recent deaths announced are those of Dr. James Wm. Cusack, of Dublin, at the age of 74, and of the celebrated Isidore Geoffroy St. Hilaire, who in the department of anatomy and physiology is said to have been second to no man living or dead, except his own father. He died on the 9th inst., at the age of 57.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 23d, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	39	36	75
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	36.3	37.2	73.5
Average corrected to increased population, . . . . .	..	..	82
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
13	0	1	2	11	0	2	1	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College —For the week ending Nov. 16th.

Mean height of Barometer,	29.831	Highest point of Thermometer,	53.0
Highest point of Barometer,	30.152	Lowest point of Thermometer,	29.0
Lowest point of Barometer,	29.380	General direction of Wind,	W.N.W.
Mean Temperature,	36.8	Am't of Rain (in inches)	0.72

BOOKS RECEIVED.—Lectures on the Diseases of Women. By Charles West, M.D., &c. Philadelphia: Blanchard and Lea. (From Brown & Taggard.)

MARRIED.—In Philadelphia, Nov. 12th, Thomas George Morton, M.D., to Annie J., daughter of Dr. Thomas S. Kirkbride, both of that city.

DIED.—At Val-de-Grace, France, at the age of 46, M. Scrive, Surgeon-General of the French Army during the Crimean War.

DEATHS IN BOSTON for the week ending Saturday noon, November 23d, 75. Males, 39—Females, 36.—Accident, 1—apoplexy, 6—disease of the bladder, 1—congestion of the brain, 1—disease of the brain, 3—Inflammation of the brain, 1—bronchitis, 2—cancer (of the breast), 1—cholera, 1—consumption, 13—croup, 1—debility, 2—dropsy, 3—dropsy of the brain, 2—dysentery, 2—scarlet fever, 2—typhoid fever, 1—gastritis, 1—hemorrhage, 2—infantile disease, 5—disease of the liver, 1—congestion of the lungs, 2—Inflammation of the lungs, 11—old age, 1—pleurisy, 1—puerperal disease, 1—suffocation, 1—thrush, 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 15—above 60 years, 10. Born in the United States, 54—Ireland, 16—other places, 5.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, DECEMBER 5, 1861.

No. 18.

CASE OF ANEURISM OF THE LEFT VENTRICLE OF THE HEART.

[Read before the Boston Society for Medical Improvement, November 18th, 1861, by HENRY I. BOWDITCH, M.D., and communicated for the Boston Medical and Surgical Journal.]

NOVEMBER 17th, 1860, called on Mrs. —, æt. 58. She had formerly had many rheumatic attacks, but she had never been confined by them, except during a severe access, lasting three weeks, twenty-five years ago. Usually her health had been perfect. She had been the mother of several children, and had always been a woman of remarkable energy, and full of activity of body and mind.

Her disease, for which I was consulted, commenced in June, 1859, with an attack, lasting two weeks, marked chiefly by distress about the sternum, and pain in the left arm. During this attack, she was able to lie with her head low, and did not have palpitation. Subsequently she was able to go about, and attend to her ordinary avocations, although occasionally she had the same trouble in the left arm.

In March, 1860, i. e. nine months from her first attack, she was going South, to attend upon her sister, who was ill ; and at Baltimore, she had, in the night, a sudden and violent attack of distress in the left chest, with vomiting, and towards morning great dyspnoea, an harassing and incessant cough, and finally copious hæmoptysis, mixed with sputa. She was treated homœopathically. In five days she recovered so far as to be able to proceed farther South, where she staid four weeks, feeling quite well, and without palpitation or dyspnoea, and being only a little weaker than usual. On her return home, and while passing through New York, she had another, briefer, but more suffocative attack during the night. By sitting up in bed she obtained relief, and was able to return to Boston the next day. She was, however, never anything but an invalid from that epoch. In a few days after her return, she had another violent attack, that prevented all horizontal posture for forty-eight hours, accompanied by severe pain in the left side, and, finally, homœopathy giving no relief, she was restored to comparative ease by the application of Baumsheid's needles, and croton oil over the heart.

She visited the White Mountains, and remained there during the

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summer. Restless nights and palpitation were, during all the time, almost constant, with inability to lie on the right side. She had never had swelled feet. Her digestion had been good, and she was not troubled in the chest after food. Diarrhœa she had always been subject to, subsequent to an attack of dysentery several years before. She had had no cough. The urine had presented no unusual aspect, and, on chemical examination, seemed normal. She was, at my visit, a little thinner than usual, and had occasional giddiness on stooping. She was sitting up, and had evident dyspnœa, but conversed readily. The physical signs were as follows. A heaving impulse of the heart over a very large space. There was a slight bellows-murmur over the aortic valves and right cavities; but over the left, the greatly enlarged dulness, out far beyond the nipple, and the impulse, were the only marked signs. In the left back, at its lower two or three inches, were flatness and broncho-ægophony, with fine crepitus on full breath. My diagnosis then was, enormous hypertrophy of the heart, chiefly of the left cavities, congestion of the lower part of the left lung, and probably slight pleuritic effusion. I ordered digitalis, gr. ss.; colchicum seeds, sodæ bicarb., aa gr. i., three times daily. Iodine, ʒ ss.; ether, ʒ i., to left back, and over heart.

Under this treatment she instantly began to improve, and was able to lie down easily at night, instead of sitting bolstered up, as she had been previously to my call, but the pills proving too laxative, the colchicum was reduced to a fourth of a grain, and a grain and a half of kino substituted for the soda.

She continued this treatment, steadily improving, until Jan. 9th, 1861, that is, for about six weeks. At that time, it was reported that she was able to go up and down stairs once daily. Looked and felt much better, and had lain down with comparative ease at night. Complained most of weakness. Pulse 72, regular and quiet. The heart was less heaving, and apparently rather less dull. Respiration behind was freer, though there was still some bronchophony and crepitus. To drive out daily. Use Blancard's pills morning and night. Digitalis, &c., p. r. n.

Jan. 27th. Râles much less, and continued improvement. Sherry wine.

About this time she had an attack of severe coryza and cough, lasting, however, only a few days. The sherry wine did not suit her, and it was omitted. For nearly two months, until March 26th, she was getting more comfortable, going up and down stairs occasionally, always, however, with some difficulty, and her nights were more or less uncomfortable. Valerian and assafœtida were ordered at different times, with relief.

In April, she had pain in the right side, not, however, inducing serious trouble. She had for the first time some œdema of the ankles, but no fluctuation of the abdomen.

Towards the latter part of April she had sleepless nights, and

more cough, and râles appeared in the lower half of the right back. Under this she was much more ill, and, the dyspnœa being extreme, I allowed her to inhale ether. This gave relief at night; but gradually she continued to use it, and finally chloroform was requested, and allowed through the entire day and night. She felt she was dying, and I could not promise that she would be better. At length, she lay constantly like one intoxicated, with the ether always at her nostrils. Enormous quantities were thus used, until, in consequence of her mental and physical state, I was obliged to take it wholly away. Under this deprivation she became nearly frantic, and the mind did not recover its balance for nearly twenty-four hours. Gradually she again partially recovered, so as to drive out, and moved into the country.

During the subsequent months, until her death, she always had more or less dyspnœa, obliging her to sit up at times in bed, leaning forward. This attitude became constant, at last. Valerianate of morphia, conium, &c., were used, with varied relief.

The urine, examined in the early part of the disease, was not albuminous, but became so at last. The feet and eyes and face were much swelled. The mind became quite dull, though easily roused, for two or three weeks before death. She was constantly sitting up, with the head leaning forward. The physical signs about the heart never altered materially. August 15th, she died.

At the autopsy, we found considerable evidently recently-effused fluid in the right pleural cavity. The corresponding lung was inflamed, red, and gray at its lower part, and healthy above. The left pleura contained a little fluid. The lower lobe of the lung was collapsed, flesh-like and without air; the upper was healthy.

The pericardium was adherent over the left ventricle by thin, old, white bands. This ventricle was very large, owing to a round prominence, of the size of a large orange, three and a half inches in diameter, communicating by a round, smooth aperture, an inch and a half in diameter, with the ventricle, and filled with coagula, stratified, as in an arterial aneurism. These strata were close to each other, and quite firmly adherent to the walls of the sac, which walls, over the greater portion of their extent, were very thin, and seemed composed almost, if not wholly, of the pericardium and a thin false membrane. The walls of the ventricle, near the base of the heart, were nearly an inch thick, with a layer of fat, half an inch more, superadded; but they rapidly grew thin towards the mouth of the sac. All the valves, and the other cavities, were healthy.

Liver congested, of medium size. Spleen small. Both organs apparently healthy. Kidneys small, and somewhat granular. Stomach and intestines contracted, not otherwise peculiar.

Remarks.—The peculiarity of this case was its morbid anatomy, viz.: its real aneurismal sac, which projected from the left ventricle of the heart. During life there was no symptom to lead me to

suspect anything more than enormous hypertrophy of the left ventricle. With this came attacks of dyspnœa, congestion of the lungs, of the kidneys, and finally albuminuria, symptoms often seen in other cardiac diseases. But the specimen is, I believe, unique in its dimensions, though not in its character, a few such cases having been noticed.

Rokitansky (*Path. Anatomy*) says, aneurism of the heart occurs usually in the old, and is owing to inflammation and softening, and gradual distension of the parietes. According to him, the sacs vary from the size of a pea to that of the fist. They are generally in the left ventricle.

According to Dr. Austin Flint (*Diseases of the Heart*), it is a very rare affection. Dr. F. alludes to Mr. Thurman's paper (*Med.-Chirurg. Transactions*, London, 1838), in which Mr. T. has collected 74 cases; and also to Dr. Bellingham (*Diseases of the Heart*), for the literature of the subject. Hope (*Diseases of the Heart*) has an admirable chapter on it. From these various papers it would appear that our case is one of the more remarkable class for the size of the sac. It is like others in not having been differentially diagnosed.

In regard to treatment, I would state that although no cure could be accomplished, much relief was obtained during the first few months by digitalis, &c., and subsequently by ether, &c., as palliatives.

DR. COALE'S ESSAY ON ANEURISM.

(TREATMENT.—Continued from page 269.)

WE first exhibit *all* these methods, and for convenience classify them as follows:—

I. Constitutional treatment.

II. Treatment directed to the sac.

III. Agents within the sac.

IV. Means directed to the artery.

- | | |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| | { Styptics and refrigerants.
Compression.
Manipulation.
Suture.
Incision and plugging.
Cauterization { Actual cautery.
{ Caustics. |
| | |
| | |
| | |
| | { Galvano-puncture.
Injection of styptics. |
| | |
| | { Ligature.
Compression. { Mediate.
{ Immediate.
Seton.
Plugging.
Acupuncture.
Torsion.
Bruising. |
| 1. Above the sac. | |
| | |
| | |
| | |
| | |
| 2. Below the sac. | { Brasdor and Wardrop's method of ligation. |
| | |

Styptics and refrigerants are among the oldest remedies applied to aneurismal tumors; and if we consider the latter as a temporizing agent only—having in view a reduction of any accidental inflammatory action in the sac—we must accord them a place among our valuable remedies. They are found more particularly useful when applying compression to the artery, under which condition the tumor often becomes inflamed and highly painful. As an external curative means, however, to be solely relied upon, we cannot think that either styptics or refrigerants can be valued highly. The opinions of many surgeons differ from this. Lisfranc, although he does not approve them from his own experience, says that for forty years no other means than the application of ice was used in the Bordeaux Hospital, where Guerin has obtained with it marked success.* It is also measurably commended by Sabatier,† Pelletan, Ribes and Larrey. The most decisive trials with it were made by M. Montini‡ at the Hospital San Andre, in Bordeaux. He applied ice to two popliteal aneurisms which had burst. The hæmorrhage was arrested and the aneurism cured, but the man ever after had an arthritic affection of the knee-joints which prevented his walking. In a young woman who had an aneurism of the size of a nut on the anterior tibial artery it was fairly tried, but the tumor increased to an enormous size and burst. Other cases are given, and the conclusion arrived at is, that in six years he has not seen one single cure by cold—a flat contradiction to Guerin. Nevertheless, as we have already said, ice is very valuable as an adjuvant.

As to styptics applied externally, though much value was attached to them by the older writers, from the notion that their peculiar properties could permeate the walls of the sac and impress themselves upon the contents, they are now, we believe, entirely discarded as wholly useless. Of styptics injected into the sac, we have something to say presently.

Incision and plugging was a means resorted to by Guattani, who thus cured an aneurism of the external iliac—opening the sac freely and inserting a pledget wet with a strong styptic into the artery. No allowed principles of good surgery would now countenance such a proceeding.

Lambert, we have mentioned, suggested sewing up the opening in the artery (which he did with the figure-8 suture) so as still to preserve its permeability. He tried it once, but did not succeed. Velpeau says that some experiments made by Armann on animals, succeeded in doing this, but we do not know of any late suggestions that it should be used as a means of curing aneurism.

Cauterization by actual cautery we have also mentioned as having been used by Severinus, but not as means directed against an

* Des diverses méthodes et des différents procédés pour l'obliteration des Arteres. Paris: 1834.

† De la Médecine Operatoire—Nouvelle Ed. Paris: 1832.

‡ Gazette Médicale, Fev. 8, 1823.

uncomplicated aneurism. Larrey has used moxa in as close proximity as possible with internal aneurisms, and he thinks with benefit, from which it has been supposed that it might set up a wholesome irritation in the lining of the sac. No experiments, however, have as yet given encouragement in this direction.

We must then dismiss the above agents directed against the sac as useless to us, leaving compression, manipulation, galvano-puncture and cauterization by caustics, still to be discussed.

Of those directed to the artery itself, two methods of compression have been suggested—viz., mediate, or through the integuments. This will have due notice, as a most valuable means, presently. The other—immediate compression, or that applied directly to the artery after laying it bare, was used with a view of subjecting the artery to pressure through much more of its length than could be done with a simple ligature. The vessel was exposed and compression established by some mechanical means by which it was continued several days and then removed. Dessault used two flat pieces of wood for this purpose; Percy, a plate of lead; and also, as an improvement, a pair of forceps with flattened jaws, the approximation of which could be increased or lessened at pleasure. Scarpa's method obtained most reputation. It consisted in passing under the artery a flat ligature or several threads a short distance from each other, and then by laying upon the vessel a roll of lint smeared with cerate, over which the ligatures were tied. This remained from three to six days, according to the necessities of the case. We believe that this kind of compression is now entirely abandoned as presenting no advantages over the direct ligature, whilst it has many inconveniences too obvious to enumerate. The particular benefit it promised was to create in the walls of the artery an adhesive inflammation and thus obliterate it.

Another proposed substitute for the ligature was *the seton*, suggested by our countryman, Dr. Jameson, of Baltimore. He demonstrated clearly, by experiments upon animals, that a seton passed through an artery caused the formation of clot and closure of the vessel. His experiments were repeated and confirmed in 1829, at the Val-de-Grace Hospital. Amussat modified Dr. Jameson's operation by passing the needle armed with a thread into the artery, and then up the tube for about an inch before carrying it out. The thread was then drawn until the end disappeared into the first hole, and was left thus with an inch floating in the vessel. This does not seem to have been an improvement, and at this day no one advocates the use of the seton.

Finding that occasionally a clot failed to form in the ligatured end of an artery, foreign bodies have been introduced to promote an irritation and glueing together of the walls. This was done with a stylet, which was passed around the interior of the vessel and then withdrawn. Roux and Dupuytren tried the effect of a

small waxed thread left in above the ligature. This, with them, succeeded well in animals, but we find no record of its ever having been tried in man, and Manec says it would be dangerous, as he has seen the end of the artery slough and hæmorrhage follow. We can lay it aside.

Another means of arresting the flow in arteries is acupuncture—passing a fine needle through the vessel and leaving it there for several days. This was first devised and tested by Velpeau, who found it succeeded well in dogs. Sometimes several needles were used at short distances from each other. In trying it upon the carotid of a horse the experiment utterly failed, and the operation was followed by so much inflammation as to exhibit clearly its dangerous character and to warn us to discard it as presenting no advantages commensurate with the attending risk.

Torsion of the artery has been used with great success in operations when arteries have been divided. We find, however, no case where it has been tried as a remedy for aneurism, though it has been suggested as such. We may say in brief that it consists in holding the vessel at one point with a pair of forceps, and seizing it a short distance off with another pair, and then by the last twisting the vessel violently between the two. The effect is to rupture the lining tissue, which will then hang out into the calibre of the tube, and clots form around its torn edges. To Amussat is, we believe, generally conceded the credit of reviving in later days this hæmostatic means, admirable and efficient in certain cases.*

Another means, intended to act in the same way as torsion, is bruising, or roughly compressing the artery so as to abrade the inner coat. This is the earliest hæmostatic operation, probably, ever used. It is resorted to by animals in the act of severing the umbilical cord of their newly-born, and is adopted by the Jewish Priest after the operation of circumcision. As a recent thing, it was first suggested by Maunoir of Geneva, in 1820, who, like all original devisers, seems to have had great success with it tried on animals. Others have not borne him out in this. It is now only used on very small arteries.

This still leaves us ligature and immediate compression to discuss as means applied above the sac.

To sum up—we consider the available means for the treatment of aneurism as follows:—

Constitutional treatment.

Compression, manipulation, and caustic applied to the sac.

Galvano-puncture, and styptics used within the sac.

Ligature and immediate compression applied to the artery above the sac—and

* See a pamphlet by Dr. Alexandre Thierry; *De la Torsion des Arteres*. Paris, 1829. Dr. Schrader, of Brunswick, wrote an inaugural Thesis on Torsion, in 1830, which seems fairly to exhaust the subject from the time of Galen to the day on which it was written. It shows great research and very careful exercise of judgment. It was written in Latin, but translated into French by Dr. Adolph Petit, and published in Paris in 1831.

Brasdor and Wardrop's operation of ligature below it.

We will now take up these in succession—trusting we have not occupied too much time with the failures of surgery.

CALOMEL IN DYSENTERY.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—We hear much talk, in this our day, in derogation of *mercury* in all its forms. The common people, in general, have a sort of superstition about this drug. Some have been induced to regard it as the sum of all medical villanies, and are inspired with a holy horror whenever it is spoken of in their hearing. While, on the other hand, there are those who regard it as necessary in some desperate cases where extraordinary means are required to stay the hand of death. They think it a most powerful remedy, which should be used only in very obstinate cases. My experience with mercury has proved it one of the mildest and most efficient remedies in the whole list of the materia medica. In dysentery it is the only remedy that has proved satisfactory in my hands. Some have recommended "*podophyllin*" as a "substitute" for calomel, especially in this disease. But as a disordered liver is, in my opinion, the essential part of the affection, my experience in the use of *podophyllin* at once forbids its administration in my practice; for experiment has proved to my mind that it has no action whatever upon any of the hepatic organs. Besides, it is nauseating, disagreeable to take, and only augments, in a most marked degree, the dysenteric pain and discharges. Now calomel, on the contrary, is easy of administration, easy in its action, and certain to act in the right direction. With it I have treated many and severe cases of dysentery—that of my own among others—and in not a single instance has it ever failed me; and in not a single instance have I ever witnessed any untoward symptoms from its use, in any disease. In dysentery I commonly use it as follows:—R. Hydrarg. chlorid. mit., ℞j.; opii pulv., gr. iij. M. Div. in chart. No. 6. Dose, one powder every three or four hours. With this I succeed in not only arresting the discharges, but in curing the disease. Some disapprove of calomel in the "acute stage" of dysentery, but I have found it of uniform value in all stages. Let others try it, and report results.

Barnstable, Mass., Nov., 1861.

W. G. BRUCE, M.D.

BENZOATE OF AMMONIA IN ALBUMINURIA.—A correspondent of the London *Lancet* uses the following remedy in cases of anasarca with albuminuria following scarlatina. The draught is intended for a child 6 years old—the patient's strength to be afterwards recruited by the ammonio-citrate of iron:—"Benzoate of ammonia, five grains; spirit of nitrous ether, fifteen minims; syrup of tolu, one drachm; camphor mixture to one ounce: to be taken three times a day."

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

OCT. 28th. *Biliary Calculi from a Patient only 19 Years of Age.*—Dr. JACKSON reported the case, from Dr. Wm. G. Breck, of Springfield. The gall-bladder was small, and much altered in structure; containing a mortar-like substance, with a number of calculi. One of these last, which was shown, was about as large as the top of the finger, compact, dark-colored, and with marked facettes. The neighboring parts were very strongly adherent; and the liver, a portion of which was sent, was indurated and altered in structure. The patient, a female, had been for some years quite plethoric, and weighed 150 pounds at the time of her death. Generally healthy, but subject to attacks of pain, extending from the right to the left side, vomiting of dark fluid, and diarrhoea, but without marked jaundice. Dr. Breck regarded the youth of the subject, in connection with the calculi, as the chief point of interest in the case; and Dr. J. remarked that the youngest in whom he had found gall-stones was 24 years of age. Dr. J. remarked, also, that he had met with them most frequently in females, and in fleshy subjects, as had been observed by others.

OCT. 28th. *Cancer of the Pylorus; Conservative Effort of Nature.*—Dr. STORER showed the specimen. The patient, a lady, 61 years old, had had symptoms of dyspepsia for years, but without severe pain till ten days before death. The pain was of a darting character. Two weeks before death, she had soreness at the epigastrium, with frequent vomiting of matter resembling coffee-grounds. She died suddenly. Her husband had died after suffering from the same disease eight or ten years. The pylorus was occupied by a cancerous mass, almost closing it.

Dr. JACKSON said he had observed that in several cases, like the present, a narrow strip of perfectly healthy tissue connected the duodenum with the stomach, when the rest of the circumference of the organ was deeply cancerous. In one strongly-marked case, the ulceration was very deep and extensive, and from its edges, and along the margin of the passage from the stomach into the intestine, there arose upon each side a high fungous growth that arched over the passage, and seemed very much as if it were intended to prevent the food from falling into the diseased cavity. It may be said, simply, that the disease happened to extend thus far and no farther; but from the number of such cases that Dr. J. had seen, the extent and depth of the disease, the defined limits of the passage referred to, and the perfectly healthy structure of the parietes throughout the passage, he was inclined to regard the arrest of the disease not as an accidental circumstance, but as one of those wise provisions of nature that we so often meet with in our pathological examinations, that help the organs to perform their functions, however imperfectly, when disease is far advanced.

OCT. 28th. *Diseased and Blighted Ova.*—Dr. JACKSON showed the specimens, which he had received from Dr. STORER, with the following histories.

In the first case, the woman had had a living child four years ago, since which time she had suffered from ulceration of the os, and had miscarried four times. She became pregnant again, about May 25th;

flowed, more or less, about the middle of July, and continued to do so, until the ovum was expelled, a few days ago.

In the second case, the woman had a slight sanguineous discharge at the end of the third month after conception, as she supposed; having had the usual signs of pregnancy—suspension of the menses, nausea, distension of the abdomen, slight discoloration of the areolæ, and a perceptible enlargement of the glandular follicles. At the end of the fifth month, her abdomen had ceased to enlarge, the glandular follicles were less obvious, she complained of indescribable sensations, was unhappy, irritable, and thought something was unnatural. At the end of the seventh month, having been quite well for a few weeks previously, on springing suddenly from her sofa from some slight alarm, she expelled the ovum.

The first ovum was about an inch and a half in diameter, and had the dead, opaque look and stiffened feel that are so often seen, without any appearance of villousities. The fœtus was three eighths of an inch long, and well formed, the extremities being well marked. The cord was also three eighths of an inch long, and apparently quite œdematous. The umbilical vesicle appeared, as usual in abortions at about the sixth week, like a yellowish, opaque, compressed mass of albuminous matter, about a line in diameter.

The other ovum was rather smaller than the one above described, but resembled it in structure, and in regard to the umbilical vesicle. Inner surface botryoidal. The fœtus was rather shorter than in the other case, and very nearly ovoid in form. Extremities very minute. Cord five eighths of an inch long, and constricted midway; the portion towards the fœtus was rounded, and may perhaps have contained some of the abdominal organs, though it had an œdematous look.

Nov. 11th. *Typhoid Fever; Cadaveric Softening of the Stomach.*—Dr. SHATTUCK reported the case, and Dr. ELLIS described the autopsy.

The patient, a young man æt. 27, entered the Hospital Oct. 25th with typhoid fever, having been sick ten days. He died Nov. 9th, with well-marked nervous symptoms. At the autopsy, a pint of brownish fluid, of the general appearances and acid odor of that often found in the stomach, was found in the left pleural cavity. The base, and posterior part of the lower lobe, and the posterior edge of the upper lobe, of the left lung, were of a dark green color, and had a soft, macerated look. On placing the parts in water, shreds of the pleura floated up everywhere along the line of demarkation; behind this line the pleura had evidently been destroyed. The surface above the fluid was perfectly healthy, as well as in the fissure, where the lobes were too closely in contact to allow the fluid to enter. An extent of the costal pleura corresponding with the destroyed portion of the pulmonary was similarly, but less deeply affected, being rendered bluish and transparent, while the bloodvessels showed much more distinctly than usual. The right lung was normal. A portion of the diaphragm, three or four inches in diameter, near the spine, was of a dark brown or blackish color, and gelatinous, while around it the tissue was softened and bluish-white. In the centre was a perforation, two inches in diameter, with very thin edges. The whole mucous membrane of the stomach, except the last three or four inches, was more or less softened by the gastric juice, and an extensive portion of the large extremity, which lay in contact with the diaphragm, was entirely destroyed. It was evident, therefore, that the contents of the stomach, after destroying its

walls, had perforated the diaphragm, and finally acted upon an extensive surface of the lung and costal pleura. The lower extremity of the spleen was also slightly acted upon, as was shown by placing it in water, when the capsule was seen to be softened, swollen, and more loosely united to the surface of the organ than usual. The first Peyer's patches were seen nine or ten feet from the pylorus. Within the next six or eight feet were several patches, in which limited portions were slightly reddened, and somewhat depressed, as from superficial ulceration. Some very limited, superficial ulceration in large intestine, not even extending through the mucous coat. Contents of small intestine of a bright yellow color; those of the large, a little darker. The other organs were normal.

Nov 11th. *Rupture of the Aorta* —Dr. ELLIS showed two specimens of this lesion, which had occurred within twenty-four hours of each other.

CASE I.—The patient was a robust, strictly temperate man, 50 years of age, who had always enjoyed good health. After attending the theatre, on the evening of Nov. 5th, he complained of pain across the abdomen, just above the umbilicus, and this continued through his illness. He took a glass of ale before returning home, and afterwards some spirits of camphor and water. He then soaked his feet in hot water, and went to bed. During the following day he was at times slightly bewildered, mistaking night for morning, and answering questions in a confused manner. In the afternoon, he was seen by a homœopathist, who pronounced the case one of "biliousness," and gave him four powders, two of which were to be dissolved, &c. &c. No other medicine was taken, except a glass of brandy and water in the evening. After midnight, he called his son, who covered him more closely, on account of chilliness, and then returned to bed, but was again roused, at 5 o'clock, by a noise in his father's room. Descending, he found him standing by the sink, allowing the hot water to run on his hands, with the hope of warming them. There was a little unsteadiness on turning towards the bed, and, after lying down, he gaped so frequently, and complained so much of chilliness, that Dr. Blake was sent for, but the patient was dead when he arrived. Drowsiness had been a constant symptom from the commencement.

The above facts were obtained from Dr. Buckingham, whom the family consulted in regard to an examination.

The countenance was calm. The pericardium was filled with a soft, recent coagulum, and some serum.

Commencing immediately above the aortic valves, in the posterior wall of the aorta was an irregular, vertical laceration upwards of an inch and a half in length, involving the inner and middle coats. At this point the blood had separated the middle and outer coats around nearly three fourths of the circumference, and around perhaps one half of the vessel as low as a point four inches above the bifurcation, where it again re-entered through a large rent. Portions of the muscular coat were separated with the outer. The opening by which the blood had escaped into the pericardium was opposite the upper end of the internal laceration. Many points of atheromatous disease in the aorta, but no ossification. Beneath the edge of the annulus ovalis was a valvular opening of considerable size. At the apex of each lung was a collection of gray granulations, but nothing which showed active disease.

The external surface of the liver was in some parts rendered white by a thickening of the capsule, and also appeared granular, but the cut surfaces did not appear as in cirrhosis.

The spleen and kidneys were unusually firm. Other organs normal.

CASE II.—The patient was a negro woman, upward of 90 years of age, who had always enjoyed good health, but within the last two years she had had some palpitation and dyspnœa on going up stairs. She fell, while in the house, and died immediately, before the arrival of Dr. Stearns, who was sent for.

The pericardium was filled with a recent dark coagulum and some serum. A short distance above the aortic valves, in the posterior wall of the vessel, was a vertical laceration, from two to three eighths of an inch in length, extending through the middle coat, and separating this from the outer around two thirds of the circumference of the vessel, and upward to within an inch of the arteria innominata. The exact point where it opened into the pericardium was not found. The blood also infiltrated the cellular tissue towards the lungs. The aorta was dilated, and even the iliacs. Atheromatous disease of the lining membrane. The other organs were normal.

Army Medical Intelligence.

WHEN DOCTORS DIFFER, WHO SHALL DECIDE?

To the Editors of the Boston Medical and Surgical Journal.

THE above question becomes manifestly pertinent on perusing *Document No. 14*, issued by the U. S. Sanitary Commission, which professes to give Guthrie's *Directions to Army Surgeons on the Field of Battle*. The last sentence of Article 9 reads:—"In incised wounds of the abdominal parietes great care should be taken to include in the sutures all the tissues except the peritoneum." So much for Document 14.

In turning now to *Tripler's Hand-book for the Military Surgeon*, we find the same distinguished authority quoted, and his (Guthrie's) *Conclusions* on the treatment of wounds of the abdomen given. At page 87, Art. 5, he says very distinctly that sutures should *never* be introduced into the muscular structure of the abdomen. Article 6 says, "Muscular parts are to be brought into apposition, and so retained principally by position, aided by a continuous suture through the integuments only." Art. 7 says, "Sutures should never be inserted through the whole wall of the abdomen, and their use in muscular parts under any circumstances is forbidden, unless the wound from its very great extent cannot be otherwise sufficiently approximated to restrain the protrusion of the contents of the cavity; the occurrence of such a case is very rare!"

Now who is to decide in this case? Whom shall we believe? I have not Guthrie's work by me—it is not in the Brigade. I must send all the way to Boston for information. I might find what I want by writing to Washington, which is only 6 or 8 miles distant; but my experience, as to the time required to obtain other supplies on *requisitions*, leads me to apply to you as a more expeditious way of getting what I want.

While on this document (14), we have a good illustration of the dif-

ference between theory and practice, and an instance of how much many of the suggestions of the Commission will "bring in the market." The very first suggestion, recommending the carriage of liberal supplies of water in conveyance carts when going to battle, though obviously desirable, will be universally disregarded. We have not a sufficient allowance of transportation now, and we never shall have enough to admit of this precaution being taken, except in very rare instances.

The Commission, however, is doing a valuable work, and there is ample necessity for it too. The *confidential* report will have a beneficial effect, by proving to persons in authority that their official standing will not screen them from merited censure. There is one point in which I hope to see an important improvement made, and that is with regard to increased facilities and expedition in obtaining supplies for field hospitals. At present it requires generally over two weeks for us to get medicines, &c., on requisitions from Washington. The obvious detriment to the efficiency of the medical officers, and even to the health of the men, resulting from the total want of indispensable medicines and hospital supplies, such as quinine and hospital blankets, and this want continuing for such a length of time, requires that some improvement should be made. I understand that the cause assigned is that the medical purveyor is overtaxed with work. If so, I should think that common sense would direct that an assistant be furnished him, rather than let us suffer. Some requisitions made nearly a month ago are not yet honored.

The prevailing diseases here now are catarrhs of every kind—nasal, bronchial, pulmonary and intestinal. Rheumatic pains of the back and hips are very common. A few cases of typhoid pneumonia have occurred within this month. All the hospital cases assume a low grade.

Our camping ground is a tough clay surface, and though we have it drained in every direction yet there is an everlasting dampness and mud.

GEO. B. WILLSON,

Late of Port Huron, Mich.

*Camp of 3d Mich. Infantry, Richardson's Brigade, }
Fort Lyon, Va., Nov. 24th, 1861. }*

[We have carefully compared Tripler's version of Guthrie's "Conclusions" with the original, as contained in his Commentaries on the Surgery of the War in Portugal, Spain, France, and the Netherlands, London, 1855, and find he has quoted him correctly. We have not seen Document No. 14 of the Sanitary Commission, but presume our correspondent gives Article 9 as it there stands, and of course it is incorrect. It is to be regretted that such a mistake should have been made, as it is at variance with our highest surgical authorities, and may lead to bad practice.—Eds.]

BRIGADE SURGEON PINEO mentions three cases of recovery from gun-shot wounds of the lung:—

"Of *Gun-shot Wounds of the Lung*, let me say one word. Three cases of a bullet passing through the substance of the lung, producing emphysema, and the air issuing from the aperture made by the bullet, so as to make the case unmistakable, have occurred under my observation, in which the patients recovered. There has been some question about the probabilities of recovery in gun-shot wounds of

the thorax, and I therefore mention these cases, thinking that you may be interested to know of such favorable results, in so many cases, of so grave a lesion."

Selections from Medical Journals.

WE re-print the following articles from the London *Medical Times and Gazette*:—

LEUCORRHOEA AND ULCERATION OF THE CERVIX UTERI DURING PREGNANCY.—In order to test the accuracy of M. Cazeaux's assertion that ulcerations of the cervix uteri are met with in seven eighths of pregnant women, M. Charrier instituted a careful examination of one hundred indiscriminately as they offered themselves to his notice. The following are the conclusions of the memoir he has prepared on the subject:—1. Leucorrhœa precedes and gives rise to ulceration of the cervix. 2. The congested conditions and processes of hypertrophy taking place in the pelvic organs are the causes of this leucorrhœa. 3. At first a physiological condition, it may become morbid under the influence of a bad state of health. 4. Nearly two thirds (62 per 100) of pregnant women have leucorrhœa. 5. Nearly eight tenths (56 of 72) of these subjects of leucorrhœa have ulcers of the cervix. 6. Of the 56 women, 41 were multiparæ. 7. For the treatment we should confine our attention to the general condition, giving mild aperients and preparations of iron, remedying disorders of the digestive organs. Local treatment would frequently induce abortion.—*Bull. de Thérap.*, vol. lx., p. 59.

PASSAGE OF QUICKSILVER INTO THE BLOOD.—Dr. Heller, in continuation of former communications, related to the Vienna Medical Society two cases in proof of the passage of mercury into the system after its external employment. These were examples of abortion, in the fifth and sixth months of pregnancy; and in both cases quicksilver was found in the bodies of the children—the mercurial ointment being in use by the mother at the time of the abortion. In answer to the question whether the mercurial inunction might not act as a cause of abortion, Professor Sigmund replied that he had for the last ten years treated syphilitic women, in every stage of pregnancy, by this method, and yet he had never met an instance of abortion.—*Wochenblatt*, No. 10.

ON THE ELIMINATION OF MERCURY FROM THE SYSTEM.—Dr. Schneider has recently made some researches on the elimination of mercury during and after a mercurial treatment, which have given the following results:—During the internal administration of such preparations, the electrolytic examination of the urine shows always traces of mercury; but the quantities are so small that the amount of urine discharged within twenty-four hours is often not sufficient for a satisfactory result, and the metal must be searched for in the whole of the urine discharged within three to six days. Traces of mercury were also found in the urine of a patient who had not taken it internally, but had been treated with mercurial ointment. The elimination of the drug by the urine lasts for some time after the mercurial ointment has been discon-

tinued. In the first week afterwards it is invariably found, and in two cases it was even discovered in the fourth and the sixth week afterwards. After six weeks, Dr. Schneider has never succeeded in discovering traces of mercury by electrolysis. The elimination of it is not promoted by the administration of iodide of potassium, as the quantity of mercury contained in the urine was not at all increased, but rather diminished, when that drug was given; and if it was taken a few months after the end of the mercurial treatment, mercury did not re-appear in the system, probably because nothing was left behind. One patient, who had suffered from syphilis for five years, and had been three times treated with mercury (the last time very energetically, having used twenty drachms of ointment, equal to more than 120 grains of mercury), died of pericarditis two months after the third course, and Dr. Schneider could therefore search for mercury in the internal organs. The result was that the bones, the brain, and the spleen, which are generally believed to retain mercury for years, did not contain a trace of it, while the kidney showed an infinitesimal quantity of the metal, the result of the examination of the liver being doubtful. It is, therefore, evident that mercury entirely disappears from the system a short time after the end of treatment, and cannot, therefore, cause secondary syphilitic symptoms; nor can it be eliminated from the system years after the treatment by Dr. Caplin's electro-chemical baths. In two cases of hydrargyrosis, considerable quantities of mercury were discovered in the urine, and in one of them, which ended fatally, also in the internal organs, especially in the liver. Urine which contains mercury does not necessarily contain albumen also; but in the two last-mentioned cases of hydrargyrosis there was albumen in the urine. The saliva which is collected during a mercurial treatment does not contain any mercury. The quantity of mercury which is eliminated after the end of the treatment amounts to about one fourth of that actually administered.

ADDISON'S DISEASE.—From a report of Prof. Buhl's pathologico-anatomical demonstrations we take the following:—

All recent investigators agree that the cortical substance of the supra-renal capsules is of a glandular character, while the interior is possibly a part of the nervous system. These organs may prepare a peculiar secretion which enters the blood; but the results of physiological researches on that point are contradictory. In regard to the extirpation of the capsules in animals the conclusions are also far from satisfactory: the high importance attributed to these capsules by Brown-Séquard is utterly denied by many others.

Disease of the supra-renal capsules has been so far observed either in combination with the peculiar discoloration of the skin (40 cases), or without it (24 cases), while bronzed skin without affection of the capsules has been noticed in 10 cases. Fourteen cases of Buhl are included in these. The principal symptoms may therefore be stated to be the bronze color of the skin, and a progressing loss of strength. The disease is almost invariably of a chronic character, and the prognosis very unfavorable. The usual termination is death, although a few recoveries are reported.

As far as treatment is concerned, tonics, and among them the preparations of iron, seemed to be followed sometimes by improvement. As yet, however, there is no evidence of a successful therapeutical influence. The iodide of potassium, proposed by Prof. Seitz, of Munich, has not been tried.

The conclusions drawn from a minute examination of several cases are as follows:—Pigmentary deposits take place not alone in the skin and tongue, but also more or less in the lungs, bronchial glands and spleen, sometimes even in the in-

testinal and mesenteric glands. They occur in diseases of the lymphatics, spleen, liver and lungs, with and without affection of the supra-renal capsules. The latter is therefore not an essential condition. Very compact miliary tubercles are developed, either surrounded by a thick fibrinous capsule, or entirely of a fibrinous consistence. Their development is accompanied by swelling of the affected organs, if these are the lymphatics, spleen or liver. They appear in the lungs without cavities; in the spleen in pedunculated bunches, connected with the bloodvessels; in the liver reposing on the adventitious branches of the smaller vessels; in the lymphatic glands and supra-renal capsules they are united to the original tissue by fibrinous formations. Caseous degeneration of the affected organ is apt to follow, especially in the supra-renal capsules and lymphatic glands. Bronzed skin, accompanying disease of several important organs which are connected with sanguification, is probably the result of a morbid change in the blood. Direct consequences of this morbid change are the deposition of pigment, emaciation and exhaustion. The nature of the change can be designated as a decrease in quantity, with an unusual decrease of fibrin. Addison's disease must be considered as a particular form of chronic miliary tuberculosis, arising from a peculiar condition of the blood, which condition results from some cause yet unknown.—*Weiner Medizinische Wochenschrift*—*Lancet and Observer*.

VACCINATION THROUGH COW'S MILK.—The following statement of M. Soubie, of Libourne (France), is from the *Gazette des Hôpitaux* of the 10th of October :—

Having vaccinated the teats of a cow, and obtained two fine vesicles, the milk of this cow was given to two children, one six months old and being brought up by hand, the other fourteen months and weaned. The first took this milk for two days, on the fifth and sixth days of the vaccination of the cow; the second drank it only one day, on the eighth day of the vaccination. This latter child consumed about ten ounces of the milk; the first, nearly double that quantity. One month after this experiment the two children were vaccinated in the usual manner, but with a negative result; whilst the same lymph used with them, acted very fully upon another child vaccinated at the same time. M. Soubie was induced to try this indirect mode of vaccination by a case in which a mother who was suckling an infant, and who was attacked with smallpox, continued to nurse her child, the latter becoming affected with slight fever without eruption. At two and five years old this child was attempted to be vaccinated, without result; and even at sixteen vaccination proved of no effect. So M. Soubie inferred that this child had been protected by the milk of the mother.

THE following observations of M. Landouzy, of Rheims, on the value of ægophony as a diagnostic in pleurisy, are from a letter of the special correspondent of the London *Lancet*.

The author states that the prevalence of Laënnec's views regarding this particular sound, and (as he believes) their practical fallacy, have induced him to publish the results of his clinical researches in connection with this point. He remarks that in some cases ægophony, during the operation of tapping the chest, augments during the escape of the fluid, and remains well marked for several days after its evacuation; but that in others the sound diminishes as the chest collapses, and ceases entirely at the conclusion of the operation. Hence he argues that the existence of ægophony indicates neither the presence of effusion, nor its abundance, nor its limits, but purely and solely a particular condensation of the lung, due to the compression of the organ by the liquid as poured out in the first place, and occasionally persisting after its withdrawal. The effusion, therefore, is only an indirect cause of the abnormal sound. When the lung is compressed by the fluid contained in the pleural cavity, and no dense false membranes exist, the performance of paracentesis may abolish at once both the symptom of ægophony and that of dulness on percussion, the lung immediately regaining its normal capacity; but if false membranes of a solid and unyielding character have been formed, then the expansion of the organ is impeded, and

ægophony will persist. "External compression," continues M. Landouzy, "produces ægophony in pleurisy, just as the internal compression in pneumonia produces bronchophony; and so long as the condensation of the lung in the former disease continues, so long does the sound, which has been heretofore thought to be inseparable from the presence of liquid, continue to be heard."

Among the many remedies employed to counteract that condition of the system known as scrofula, the arseniate of soda is considered by M. Bouchut as the most effective. We quote the following from the *British American Journal*.

"Arsenic," says M. Bouchut, "is one of the best of our tonics, and it is a powerful succedaneum of iron, quinine, or cod-liver oil, and for this reason it is efficacious in most organic and nervous cachexiæ when the resulting disorders have not become too considerable or too inveterate. In scrofulous cachexia it is an excellent remedy, children under its influence generally recovering their strength, color, and appetite. But this is only an amelioration, for in cases in which it effects a *cure* the cachectic state has not yet been attained, and the local manifestation is confined to the skin, mucous membranes, and the glands. Beyond these, in diseases of the bone and in tuberculosis, it is only a good palliative. In scrofulous coryza, ulceration of the skin, suppurative adenitis, otorrhœa, leucorrhœa, or perforations of the velum, the relief obtained is prompt." It may be given with quinine or in simple syrup, and M. Bouchut recommends doses of 1-60th grain of arsenic to commence with, gradually augmenting the quantity."

THE deductions from the experience of nine years' use of quinine in tropical malarious districts, as stated in a recent paper on this subject, communicated to the *American Medical Times*, are—

1st. That no serious harm to the system ensues from the long-continued and judicious use of quinine. 2d. That quinine given as a *prophylactic*, will *certainly prevent the developments of miasmatic disease*, and neutralize malaria already in the system. 3d. That the amount of quinine required to maintain a status of health under malarious influences is much less, when used as a prophylactic, than as a curative after development of miasmatic disease. 4th. That the amount of quinine required as a prophylactic is more uniform, than as a remedy after attack of malarial disease. 5th. That quinine will not always restore to health a person *after repeated attacks* of malarious disease, but will *frequently fail* to prevent malarial cachexia, especially if not removed from the miasmatic influences. 6th. That cold, clear infusion of coffee is the preferable diluent for the morning dose, and whiskey for the evening dose of quinine as a prophylactic. 7th. That quinine dissolved in spiritus nitri dulcis produces very happy effects when administered during paroxysms of malarial fever.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 5, 1861.

WE have been much interested and gratified by reading the report of the Committee of the City Government on the City Crier's House. This humble institution, through the agency of the benevolent public functionary at its head, is doing a work of public charity in this community, for which it has not had the credit it deserves. Its modest light has been hid under a bushel; it should be diffused over a larger area. To most people in Boston the City Crier's House implies only the

residence of that officer, and a place where distracted parents may find their errant offspring of tender years; but this is perhaps the least important function which it performs. It has, through the kindly instincts of the present incumbent of the office and the fostering care of the Overseers of the Poor, gradually become a very important branch of our public charities, doing what no other does, and yet hardly having a legal recognition. This careful guardian of the stray children whose parents are most eager to reclaim them, has become the acknowledged foster-father of all those unfortunate waifs of humanity, cradled in baskets and left on door-steps, whose parents are equally anxious to get rid of them. His house is now the recognized haven of all such, and it is well that there is a place where they can be at once conveyed and be properly cared for. Other neglected or orphan infants also find their way there, and thus a permanent nursery is constantly supplied with these young plants, which by adoption into families where the anticipations of those who had hoped to become parents have not been realized, are transplanted into a more genial soil than the ordinary course of things would have placed them in. To supply the wants of these children while they are at the Crier's, there is a body of wet nurses—women who have lost their own infants, and who thus find relief and comfort for themselves while they are seeking employment in their peculiar vocation elsewhere. Another class of children are taken in, who have been deprived of their natural protectors by death, poverty or sentence to penal institutions, and who are thus much more likely to be brought into the hands of their relatives than they would be if consigned to the forgetfulness of the Island. The Crier's house, too, supplies a temporary refuge, and thus a chance for permanent reformation, to females who have just served out a sentence at Deer Island or South Boston, giving them an opportunity to look for respectable employment, and saving them from the dangers of exposure, which would be inevitable without such a resting place. A night's lodging, also, is here given to many a homeless wayfarer, who would otherwise have no other than the station house. Many a meal is here supplied to those who have no other resource. In short, in the words of this excellent report, it

"Is of great utility as a distributing centre, where unfortunates find a temporary asylum, and are thence sent where they can earn their livelihood, or else be cared for at the least expense compatible with a reasonable degree of comfort. It serves, in fine, as a vestibule to all other charitable institutions, alike of the State, the City, and of a private nature, affording a resting place in the downward course, and inducing a more vigorous effort to escape the humiliation of public dependence, from which all naturally shrink. Hundreds who, but for this chance to breathe, would sink helplessly into the abyss of hopeless pauperism, recover strength to struggle more energetically with their misfortunes, discover some previously unthought-of mode of extricating themselves from their entanglements, become self-reliant, self-dependent, and eventually useful and happy members of society."

"The establishment owes its existence neither to law nor ordinance, has never been recognized by either, but gradually developed out of wants not elsewhere as adequately supplied. It has been under the charge of the Overseers, provided for by a specific amount in their appropriation, and thus sanctioned by the City Council from a profound sense of its usefulness. It would not perhaps have been practicable, but for the character of Mr. Hill, in which good sense, conscientiousness and humanity are happily blended, the energetic benevolence of his daughter, Mrs. Allen, and the devotion of Mr. Casey, who has long and faithfully subserved the multifarious purposes of the establishment."

Standing upon such an equivocal basis, the Committee have had some scruples about continuing it without further warrant of law, but they are agreed upon the importance of sustaining it by some adequate provision. In speaking of its beneficiaries they say:—

“If abandoned, foundlings must go to the Island, and lose all chance of being adopted; persons found homeless in the streets, males and females, be sent indiscriminately to the stations; and mendicants at our doors craving food, supplicate in vain, or else receive money to be expended in intoxicating drinks, the last resort of the wretched. We cannot recommend this unless some substitute can be devised, such as the City Hospital and the Workhouse, which has been so often the subject of consideration, may in some degree supply.”

From the tabular report of the Temporary Home, as the Crier's house is called in some parts of the report, we gather the following items for the year 1860, preferring these to the imperfect results of the current incomplete year. We find that the whole number of adult male inmates was 1,924; of female adults, 1,974; children under 12 years of age, 526; children taken to be adopted, 75; lost children restored, 379; total number of persons assisted, 4,878. Of these, 580 were sent to the almshouses; 366 have obtained service places; 738 were sent from the city and State; 450 have returned to their homes; 2,744 have provided for themselves after receiving food and advice. Total expense, \$6,992.05, or \$1.43 for each person. Truly an insignificant sum in comparison with the benefit conferred!

We have thus hastily glanced at this interesting report, which we should be glad to quote more largely, but want of space forbids. We have wished to direct the attention of some, not conversant perhaps with this excellent charity, to the good work which it is doing. To physicians, particularly our brethren in the country, who are sometimes at a loss where to find a wet nurse in an emergency, we would say, that nowhere in the city will they be likely to find the want supplied so surely and so well as at the Crier's house, No. 54 Portland Street; there are almost always several to be found there waiting employment.

THE BERKSHIRE MEDICAL JOURNAL.—We see with much regret in the last number of the *Berkshire Medical Journal*, that with its publication closes the career of that youthful periodical. Familiar, as from our position we must necessarily be, with all the changes and chances of Journal life, we were nevertheless not prepared for this sudden demise of a periodical that had thus far shown such unmistakable signs of vitality and vigor, and the event can only be attributed to the pressure consequent upon the sad political crisis that is upon us. In retiring from the position that they have maintained with so much ability and learning, the Editors will carry with them the pleasant reflection that to no lack of zeal on their part have their labors thus been brought to an abrupt termination, but rather to circumstances far beyond their control. They have labored faithfully to advance the interests of medicine, and the Journal has always maintained the dignity which is inseparable from all that comes within the true domain of science. A void has been created in the department of our periodical literature, which will not soon be filled; and as the moons come round none will miss more than ourselves the *Berkshire Medical Journal*, in its neat and scholarly attire, always containing much well-chosen, instructive and practical

information. The Editors retire from the field with our best wishes for their health and prosperity.

THE U. S. SANITARY COMMISSION commenced another session at Washington on Saturday last. We coincide entirely with the *Medical Times* in regarding this Commission as one of the most important auxiliaries to government in the prosecution of the war. "Although its labors are unobtrusive," says that Journal, "yet the good results which flow from its well concerted plans are obvious on every hand. It deserves the encouraging support of every patriot and philanthropist. We have several times called the attention of the medical profession to its claims upon their support, and pointed out the methods by which they could give it material aid. Our appeal has not been unheeded, but we hope no one will weary in his contributions of the means by which the Commission can extend its usefulness."

APPOINTMENTS.—Dr. P. A. O'Connell, of Boston, formerly Assistant Surgeon of the 9th regiment, has been appointed Surgeon of the 28th regiment, and Dr. Geo. W. Snow, of Chelsea, Assistant Surgeon.

PUBLISHER'S NOTICE.—The bills of subscribers to the JOURNAL have been made out, as usual at this season, and will be enclosed in this number and the next to the weekly subscribers, and in the January number to the monthly ones. They are sent to all who have not paid for the year from the commencement of the 65th volume, as well as to those who owe for previous volumes. An early attention is requested to these bills, more particularly from those who are in arrears. The commotions in the country have greatly restricted the circulation of this as well as most other publications, and a reasonable degree of promptness on the part of those who receive it, is therefore especially important. Money may be sent by mail, addressed to the publisher, Medical Journal office, 334 Washington St.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 30th, 1861.

DEATHS.

	Males.	Females	Total
Deaths during the week,	36	49	85
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	37.1	38.1	75.2
Average corrected to increased population, . . . . .	..	..	83.9
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
24	0	1	0	6	0	0	1	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Nov 23d.

Mean height of Barometer,	29.973	Highest point of Thermometer,	42.0
Highest point of Barometer,	30.200	Lowest point of Thermometer,	25.0
Lowest point of Barometer,	29.398	General direction of Wind,	W.N.W.
Mean Temperature,	33.1	Am't of Rain (in inches)	0.00

COMMUNICATIONS RECEIVED.—Several private letters from surgeons at the seat of war to friends at home, and containing matters of much professional interest, have been kindly forwarded to the JOURNAL office, and will receive immediate attention.

PAMPHLETS, &C. RECEIVED.—The Forty-fifth Annual Report of the American Asylum for the Deaf and Dumb.—Introductory Lecture, on Baron Larrey, by Dr. D. Hayes Agnew, Philadelphia.—Twenty-fifth Annual Report of the Vermont Asylum for the Insane.—The Physician's Pocket Memorandum for 1862, by C. H. Cleaveland, M.D., Cincinnati.

MARRIED.—At Wenham, Nov. 27th, John L. Robinson, M.D., to Miss P. A. B. Hadley, both of W.

DEATHS IN BOSTON for the week ending Saturday noon, November 30th, 85. Males, 36—Females, 49.—Accidents, 2—anaemia, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 7—consumption, 24—convulsions, 1—croup, 1—debility, 1—diarrhoea, 2—dropsy, 2—dropsy of the brain, 1—drowned, 2—typhoid fever, 1—gastritis, 1—disease of the heart, 2—infantile disease, 1—intemperance, 4—disease of the kidneys, 2—disease of the liver, 1—inflammation of the lungs, 6—malformation, 1—marasmus, 3—measles, 1—mortification (of foot), 1—ovarian disease, 1—paralysis, 2—pleurisy, 1—premature birth, 2—disease of the stomach, 1—syphilis, 1—unknown, 4—whooping cough, 3.

Under 5 years of age, 35—between 5 and 20 years, 3—between 20 and 40 years, 15—between 40 and 60 years, 20—above 60 years, 12. Born in the United States, 55—Ireland, 27—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, DECEMBER 12, 1861.

No. 19.

A CASE OF ABSCESS IN THE CEREBELLUM AND MENINGEAL
DISEASE OF THE SPINAL CORD.

[Read before the Boston Society for Medical Improvement, November 25th, 1861, by B. E. COTTING, M.D.,
of Roxbury, Associate Member.]

As affections of the cerebellum, to say nothing of its proper functions, are involved in so much obscurity, the notes of a single case, rendered complete by a faithful autopsy, may not be unworthy of record.

Eliza A. L. Aged 5 years. Born in St. Johns, N. B.

At 7½ months fell from a chair, and struck the head. Backward in speech and walking; in consequence, it was supposed, of the fall. Walked at 1½ years.

At 2 years, had dysentery, with vomiting. Was long in regaining strength.

At 3½ years, had severe inflammation of the throat. Recovered very slowly. Speech thick and indistinct ever afterwards. Wry-neck for eight or nine weeks.

At 4¾ years, in Boston, attacked with scarlet fever, which culminated in the first week of July last.

About the middle of July appeared very stupid, taking no notice of what was passing about her, not even of the death and funeral of a younger child in the same room. However, when questioned, she returned sensible answers. This stupor had lasted ten or fifteen days, when abscesses broke and discharged from both ears. From this time she seemed brighter, and continued to improve; began to sit up, and to gain flesh.

August 17th, removed to Roxbury. At this time she walked like a beginner. When placed upon the feet, she complained that they were sore. Was carried out in a chair every day, and enjoyed the exercise and airing. Appetite ravenous for bread and meat, but would not eat anything else. Slept all night, quietly. At times complained of pains in the limbs, and desired to have them rubbed. Constant and very offensive discharge from the ears.

August 24th.—Vomited. This was followed by purging, which ceased on the following day.

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August 25th and 26th.—Vomited often. Thirsty. Asked for bread. Had no dejection. Complained of pain in head and body. Running from ears profuse.

August 27th.—I saw her for the first time, and obtained the foregoing account. Now, lying on back; eyes rolled up, squinting occasionally; pupils rather large, and slightly variable. Now and then a slight spasmodic twitching about the mouth and face; occasional grinding of the teeth; once an outcry as if in acute pain; consciousness seemingly feeble; no decided loss of sensibility; general unwillingness to move, or to be moved; a foul, purulent discharge pouring out of both ears; skin hot and dry; pulse 110, feeble; no dejection; vomiting frequent and distressing; nothing thrown off except a little white, feathery froth.

August 28th and 29th.—Vomiting continued, very frequent and painful—so much so that on account of it she refused food, and even water, although thirsty; bowels constipated; spasmodic actions ceased; strabismus gone; other symptoms same as before.

August 30th (one week from attack).—Head began to be drawn backward; and, other symptoms remaining the same as before, this tendency increased daily and steadily until,

September 3d, the occiput rested upon the scapulæ—the crown of the head being upon the pillow, and the eyes turned directly to the headboard of the bed. The pelvis was at this time bent backward as far as possible, but the spinal column remained in other respects in normal shape. There were no indications of spasm, palsy, or loss of sensibility. Pulse 100. Costiveness continued; dejection, by enema, “small, but as in health.” Vomiting frequent—particularly distressing whenever attempts are made to take nourishment or drink. Has taken only a few drops of liquid, through a quill, since August 29th. Marked difficulty in swallowing—seeming to arise from loss of power in the throat. Troubled in nights with an occasional cough, said by attendants to “perfectly resemble croup cough.”

September 6th.—Took, to-day, about a teaspoonful of rice-water, which caused so much distress that she absolutely refused further trial. Asks for nothing. Moans occasionally. Pulse 100. Conscious and takes notice. Memory unmistakable. Unwilling to be touched. Restive, turning occasionally from side to side. Appears to suffer but little when undisturbed. Got out of bed in the night, and was found standing nearly upright, holding on to the foot-post of the bed. Head immovably fixed back upon the scapulæ. Pelvis less firmly bent than heretofore. Expression ghastly. Emaciation extreme. Has not taken a fluid ounce of food or drink for eight days. Had dejection, spontaneously, “small, but as from one taking food.” Has complete control over the bladder, and insists upon being taken up and placed upon the chair.

In the night of September 6th to 7th suffered greatly, but was

partially quieted by ether, and thirty drops of liquid acetate of opium, which the attendants managed to get down in divided portions. Showed almost incredible voluntary muscular strength in the paroxysms of distress. Towards morning of Sept. 7th, the pulse became rapid and intermittent; the breathing, which up to this time had been in no wise remarkable, became irregular and interrupted. The extremities soon after began to be motionless and cold—till, sinking very gradually and quietly, she—

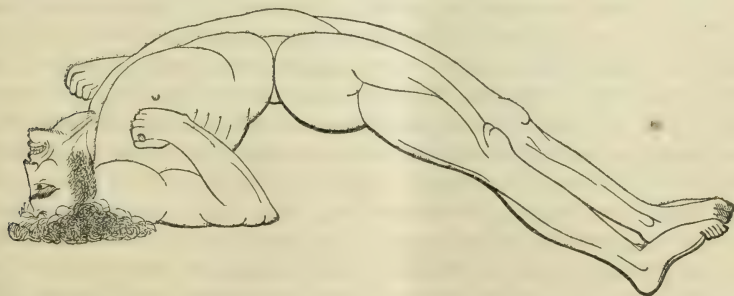
September 7th, died, at 1 P.M.

The following outline, from a rough drawing by one of the gentlemen who saw the patient in the last days of her illness, will give a tolerable idea of her appearance.



The extraordinary position of the head and pelvis are well indicated, as also the strained prominence of the anterior portion of the neck. The limbs are represented as the patient often placed them, though she frequently changed their positions. The usual posture of the foot and toes is correctly shown. The expression of the face, distressful for the most part, with open mouth and half-closed eyes, has not been attempted, as this varied from smiles to tears, according to her emotions.

Such a state of things differs essentially from opisthotonos, which the position at first sight suggested to several visitors, but in which all the muscles are rigidly contracted—the more powerful flexors prevailing over the extensors. This may be seen in the subjoined outline of Sir Charles Bell's sketch taken from soldiers wounded in the head at Corunna.



The original is believed to be the only exact portrait of the affection ever taken from nature. As such, although the parts of

the brain injured are not mentioned, a comparison of its outline with that before given may not prove uninteresting. In our patient there were no strong spasms or violent contractions. It is true, the head could not be moved from the position assumed, but then this fixed position was the gradual work of several days. Neither were there indications of palsy or loss of sensibility in any part. During all the last sickness (excepting, perhaps, the first few days), the patient was undoubtedly conscious, and, though not always seeming to notice, observed whatever took place about her. She would repeat remarks, and give her mother descriptions of what was done in her absence. She could hear tolerably well, though her ears were greatly diseased, and discharged very freely. Her eyes lost much of their natural expression, and a mucous film covered the lower portion of the eyeball exposed to the air by the imperfect closing of the lids, yet she could see quite well. Even the last night of her life she recognized her mother, and distinguished her, by sight, from others standing near. From time to time, she made choice of her attendants. She would not allow the door of her room to be closed at any time. She always insisted upon having the gas lighted at early nightfall. She remembered things long past, as well as of a few days or hours. She compared the appearance of one of the physicians who came to see her, to that of her "old doctor" who attended her for sore throat a year and a half previously. The day before she died she told her mother that she was very sick, and could not recover. In many, various, and unmistakable ways she showed that her mental powers, such as they were, were not materially impaired by the disease which finally proved fatal.

Autopsy, by Dr. C. Ellis, twenty-four hours after death. Present, Drs. Ellis, Gould, Dean, C. Homans, Arnold, and Cotting.

The petrous portion of the right temporal bone was extensively carious, the cancelli being filled with pus. The corresponding part of the left side was still more diseased, a small sequestrum of the inner surface and parts below having nearly separated. The dura mater covering the latter part had been destroyed, and the cerebellum was adherent. On separating it, there was a gush of pus from an abscess, which occupied two thirds of the left lobe, but, according to Dr. Dean, who examined the parts carefully after hardening them in alcohol, did not involve the pons, or any other part. He also found a small, circumscribed cavity (abscess?) in projecting part of the middle lobe of the cerebellum, extending from a point about on a level with the origin of the 7th nerve, and reaching as high as the top of the 5th. There was some opacity of the membranes at the base, but no pus, and nothing which showed absolutely the extension of the disease from the ear. Upwards of two ounces of serum in the lateral ventricles, with softening of the cerebral substance around, and of the septum lucidum. The blood in the left lateral sinuses was firmly coagulated.

The interval between the arachnoid and pia mater of the spinal cord was filled with a dense deposit of pus, extending the whole length of the cord, but especially noticeable in the dorsal and lumbar region. The inner membranes were much thickened. The cord was of about the normal size, and healthy, both to the naked eye and under the microscope. The organs of the chest and abdomen were healthy.

DR. COALE'S ESSAY ON ANEURISM.

(Continued from page 368.)

CONSTITUTIONAL TREATMENT.

THE first methodized constitutional treatment directed against aneurism is that called Valsalva's. It is rather curious that the name of this once eminent physician is now known almost entirely from its connection with this method of treatment, and yet it is not given in any of his works. He was born at Imola, in the Romagna, in 1666, and died in 1723. His works were edited by Morgagni (who wrote eighteen letters of commentary upon them), and published at Venice in 1740,* but in the text no mention is made of this particular treatment of aneurism. For it we are indebted to Morgagni's exposition and to a paper published by Albertini, a fellow student of Valsalva's, in the first volume of the Commentaries of the Academy of Bologna. Albertini uses the plural pronoun, including with himself "our dear friend, and whilst he lived, the companion of our studies, Ant. Maria Valsalva." He says, "we began, after having considered the nature of the lesions, to think that perhaps a plan of treatment might be devised that would be useful, safe and efficacious, provided that the patient would not complain of being kept about forty days in bed, during which time one or more venesections should be had recourse to, clysters be administered, wine be abstained from, and such a quantity only of food and drink be taken as would be sufficient to support life; and this should be given not merely in two separate portions in the course of the day, but at three or four distinct intervals, so that the small quantity taken might in no way distend the bloodvessels." They also tried the healing effect of herbs, but principally relied on the system of diet. Valsalva's first case "terminated as favorably as we could have wished," and several young persons whose disease had not yet become chronic, were in great measure or entirely restored to health. With others more advanced in years and in the affection, it was arrested. Sabatier gives a very interesting case in which it succeeded, but he added to the treatment just detailed, the daily administration of "pills of the alum of Helvetius," and the tumor was covered

* Anton-Maria Valsalva Opera, hoc est, de aere humanâ et dissertationes anatomica cum additionibus. J. B. Morgagni, Venitiâ, 1740. 2 vols. 4to.

by a bag half full of powdered tan, frequently freely moistened in red wine. The patient's drink was lemonade, made strong with "l'eau de Rabel" and a highly astringent syrup. He does not give the particular dates, but says the tumor diminished and in good time was entirely cured.

We are surprised to find, after careful and extended search, that the records of our profession afford us so little on this important subject, and very slight allusion is made to general treatment even as an adjuvant to more decisive means, as if it might be considered that the latter were sufficient in themselves. We find Laennec recommending it in general terms, and urging also the employment of lead in conjunction with it, which was suggested to him by the pale and exsanguinous condition of the tissues of those who die from lead colic.* We get, however, no reports of his trials.

In the first volume of the Transactions of the Medical and Physical Society of Calcutta,† we find a case of aneurism of the innominate treated on principles similar to those of Valsalva, but with the addition of the use of ipecacuanha in sufficient doses to keep up a tendency to nausea. Treatment was commenced Oct. 9th, and by Dec. 8th the tumor in the neck had nearly disappeared. The pulsations were also diminished, whilst the pulse at the wrist became more developed. This favorable condition continued until June 6th, when symptoms of disease in the liver appeared, of which the man died. The aneurismal tumor was found greatly consolidated.

We find a very satisfactory case of cure of traumatic aneurism of the carotid, given by W. R. Beaumont, of Toronto.‡ The wound was inflicted eight weeks before the man's admission to the Hospital. The resulting tumor was two inches in diameter. Ten drops of tincture of digitalis were given three times a day, and spoon diet and perfect rest enforced. A week after his admission he was bled to ten ounces, soon after which, the tumor appeared smaller. The treatment was pursued for nine weeks after the first bleeding, and eighteen after the wound was received. The tumor was no longer visible, but the bruit continued.

Such is all we can get hold of, of actual experiment in this line, and we cannot but think that had it proved successful, we should have had more to show in favor of the method. The cases given are yet instructive, and afford us hints of what might be done, not only where operating is inadmissible, but in cases the danger of which is increased, and the result of surgical interference rendered very doubtful, by the great advance of the disease or undue violence of arterial action.

This leads us naturally to the question—what have we to lessen inordinate action of the heart—for this, surely, is a great obstacle

* *Révue Médicale*, June, 1825.

† Published in 1855.

‡ London *Lancet*, July 24th, 1854.

to success in many instances, and something by which we can control it a great desideratum.

Saline aperients have had much reputation as agents to effect this, but they have to be used with care, and not carried to the extent of weakening the patient—nor should the system be so saturated with them as to lessen the coagulability of the blood—a danger not imaginary nor trivial in its results.

We have found opium in two cases to have a remarkable and delightful control over the heart's action, without any unpleasant reaction or other sequence. We have to consider, however, these cases as exceptional, or at least exceedingly rare, for in most instances the reaction following the use of this narcotic, and the gastric disturbance and constipating effects of it, more than counterbalance its excellences. We should add, that in both these cases the doses given were large, and possibly here may be a defect in the way we generally administer it—that is, we may give it in doses so small as not to develop the full sedative effect of it. The preparation we used was McMunn's elixir.

Digitalis has for a long period enjoyed a high reputation as a cardiac sedative, and deservedly so. We have never found it cumulative in its effects as it is described to be by many writers, nor does it annoy the stomach. Its fault is a want of certainty in its action, and this objection to it holds in whatever form it is administered. The most reliable method of giving it is in the form of a pill, provided the drug is good and fresh to begin with; but in this way we labor under the disadvantage of not being able to modify, increase or diminish the dose at pleasure, and from internal to external—a very desirable thing in many instances. Of its preparations, the tincture retains its virtue unimpaired the longest, but we prefer for immediate use the decoction of the U. S. Pharmacopœia. This has appeared to us to be uniform and reliable in its effects, and we have never known it to offend the stomach.

Hoffman's anodyne formerly had a high reputation as a calmant, and its virtues as such were greatly extolled when it first came into use. Of late years it has fallen into disrepute, and deservedly so, for few if any of the happy effects ascribed to it have been witnessed upon its administration. The reason of this, we are convinced, is that a very imperfect and different article has been sold under that name. Within the last year, however, Dr. Squibb, of Brooklyn, L. I., has manufactured the article carefully according to the old formula, and, using this, we are happy to say we again recognize in it the virtues attributed to it by early writers. We have not used it in any affection of the heart as yet, but we think it well worthy of mention from what we have seen of its effects where the action of the heart was disturbed by causes outside of itself.*

* * While this is going through the press, we have tried Hoffman's anodyne in two cases of excited action of the heart from organic lesion, and it has been satisfactorily efficacious.

The agent, however, to which we look as a sheet anchor in such cases, is the *veratrum viride*. This has been for a great while in our Dispensatories, and has been acknowledged to possess very active properties; we do not understand therefore why it should have been so little in use until lately, more particularly as its virtues had been several times set forth in our Journals by enthusiastic, yet accurate and careful observers. Its reputation as a calmant to the heart's action is such now that we scarce think it necessary to expatiate upon it. The most convenient and efficacious preparation of the article is the fluid extract. For the appreciation in which this is now held, we feel greatly indebted to the Middlesex East District Medical Society of Massachusetts. The gentlemen of this Society had a quantity of the preparation made, which they freely distributed to their professional brethren for experiment. Its virtues were thus soon exhibited and recognized. Before this, we had used it ourself largely, and always with the same result—a wonderful control over the action of the heart—lessening its pulsations in number even down to 40 in the minute, and reducing them proportionally in strength, and this even when stimulated by violent local inflammation—pneumonia, pleurisy, and the like. We have not had an opportunity of trying it in aneurism, but why have we not in this a valuable and powerful assistance to us in dealing with that disease, or rather with that element of it depending upon the heart's action? We cannot but think it would be a most efficient agent in cases submitted to Valsalva's treatment, and in those treated by compression it must evidently assist us greatly.*

Compression of the Sac.—As we have mentioned, Paré's attempts to use compression were not successful, and he threw this means aside as being inefficacious. Dionis advised it, and afterwards Guattani methodized it. He covered the tumor with charpie, and placed above this, thick compresses. Another compress was placed between the tumor and the heart, and the whole covered with a roller bandage moderately tightened, extending from below the tumor to the upper part of the limb. This dressing was renewed every twenty days, and was kept moist with refrigerants and astringents. To this application, rest was enjoined and low diet—with leeching to the sac if necessary, and anodynes when the case required them. Guattani, who gained considerable reputation for this method of treatment, is said to have cured four cases out of five by it. Three were popliteal and of great size.

Other methods, more particularly that of compressing the artery itself, seem lately to have superseded this method of Guattani, but it nevertheless appears to have several advantages which should

* It is very curious that a general misapprehension prevails about Valsalva's treatment, and it is commonly supposed that he advocated repeated bleeding to reduce the patient, and only one or two meals a day. This error was so prevalent that Dr. Brady of Dublin, two years ago, published a little pamphlet on the treatment of Internal Aneurism by the method of Valsalva, to correct it; and with the same view we have been careful to quote Albertini's own words.

not be overlooked, and which render it efficacious when others might be entirely unavailable. To estimate its excellences, then, we should begin by considering its defects. These are, its inapplicability to large tumors, or to those in a state of inflammation. We would scarcely trust it, either, when the artery itself is very large. It might, however, be used as a last resort in cases of aneurism where other means were not advisable; thus, in a case of femoral aneurism just below Poupart's ligament, requiring (if a ligature were resorted to), the tying of the external iliac, we certainly should give a fair trial to Guattini's method of compression, before resorting to what we consider a very grave operation.

Mr. Skey* gives a case in which this mode of compression was used, which is interesting though not complete. A man, aged 34, had an aneurism of the innominata. He was treated with nourishing food and opiates, occasionally with steady pressure upon the tumor, which once or twice felt like bursting. "The effect of the pressure, which is still kept up steadily, seems to be, to thicken the coats of the aneurismal sac; the case in every point of view being quite satisfactory as regards the good effects of long pressure." We are sorry we cannot give the continuation of the case, but we find no allusion to it in any subsequent number of the journal from which it is taken.

We would say too, in brief, that where such compression is possible, and other methods which we consider possess peculiar advantages—to be described hereafter—are not available, we would feel that our resources were not exhausted until we had used it fairly. Its particular applicability and its excellence, compared with that of other methods, will be more fully estimated and exposed presently.

[To be continued.]

Army Medical Intelligence.

LETTER FROM BRIGADE SURGEON GEORGE H. LYMAN TO WM. W. MORLAND, M.D., OF THIS CITY.

We are permitted, by the kindness of Dr. Morland, to publish the following interesting letter from Dr. Lyman.

IN CAMP, NEAR HALL'S HILL, VA., NOV. 27th, 1861.

DEAR DOCTOR,—Since I wrote you last, we have had but the usual routine of camp life; and though my duties give me little leisure, there is nothing in it which would be of *particular* interest to you professionally. The pickets occasionally catch a rebel or get caught themselves; the contrabands, deserters or scouts have long stories to tell; sometimes foraging parties or squads of cavalry get into a scrimmage with similar parties of the enemy, serving to make a startling paragraph for the newspapers, which we have some amusement in

* London *Lancet*, Jan. 5th, 1856.

criticizing. The grand review of last week was a novelty to us; 61,000 soldiers in one body, in every way well-appointed, are worth seeing anywhere, and, as you are aware, are not often massed together, even abroad; much more was the review of that number a noteworthy circumstance in America. Ambulances followed their Brigades, in expectation of accidents; fortunately they were not much needed. One or two men were knocked down near me, one of whom was somewhat injured—seriously, I at first thought—but he soon recovered consciousness, and eventually escaped with a pretty severe scalp wound. The review was commended by the military judges as showing what a couple of months of drill and discipline will do, and I presume that before many weeks the efficiency of the army will be tested. During the day the enemy's guns at Manassas were distinctly heard, probably intended as a defiance to us.

This Division, and, so far as my observation extends, the whole Army of the Potomac, is in a very healthy condition. The Sanitary Commission I see report an average of 8 per cent. sick. With the cold, wet, changeable weather, so unlike what I had expected to find in this boasted latitude, there are, of course, constant applications to the Regimental Surgeons for relief from colds, sore throats and "pains all over," and, as many of these are excused from duty for a day or two, they serve to swell the sick list without in reality causing a corresponding diminution in the efficiency of the regiments, should any emergency arise for their service, for in such case a large proportion would be available and ready for duty. Taking only those totally unfit for duty, the ratio per thousand would be exceedingly small. Occasionally one regiment of a Brigade may have a large percentage disabled, as was recently the case with the 44th New York, or Ellsworth regiment, who have had 100 down with measles during the last three weeks, while a neighboring regiment may report sick half a dozen only. Two cases of variola have occurred in the Division within the past month, but instant measures being taken to vaccinate all those about whom there could be any doubt, no other cases have occurred. During the fall, the 2d Maine regiment have had a good many cases of diphtheria. They were recognized at once by the Surgeon, Dr. Morison, of Bangor, an experienced practitioner, but for fear of exciting alarm were reported as tonsillitis. He has no doubt of the correctness of the diagnosis, and certainly those of the cases which I examined were totally unlike any ordinary form of tonsillitis. In one case, I found the membrane as dense and tough as is ever seen in the larynx in the late stages of membranous croup. I enclose his report to me on the subject, as it may interest you in connection with the discussion some time since at the Medical Improvement Society.

Typhoid fever is the most serious disease which remains in the Division, and of this nearly every regiment has a few, and I am happy to say only a few, representatives. Some deaths have occurred. Up to the period of convalescence they do as well under canvass as they would in the city hospitals, but I have no question that after that period they would recover faster in a properly-arranged convalescent hospital, with its more easily-regulated temperature and greater comforts generally. Quinine is extensively used, and at times the demand has exceeded the supply. The quantity given by Massachusetts Surgeons to the three months' men, early in the season, was criticized by some as extravagantly large, and in some instances was injudiciously

taken from them and turned over to the Government, who doubtless were glad to get it!

In some of the rubeola cases, the pulmonary irritation resulted in pneumonia, with typhoid symptoms, four or five of which terminated fatally. One case of continued fever, so mild in its type as to call for little or no treatment, was complicated with intestinal hæmorrhage to an alarming degree. I merely mention it as another instance of this complication of *mild* cases. Indeed, I have never happened to see it occur in any other *than* a mild case. The patient, it may be added, is convalescent.

Various devices are resorted to for warming the Hospital tents. All can have, and most of them do have, small stoves, but the liability to smoke, and the constant need of replenishing the fire and removing the ashes, is a great objection to them. Inequality of temperature, however, is the most serious difficulty, for while the vicinity of the fire may be uncomfortably hot, that of the thin canvass tent walls must necessarily be quite cold. The best arrangement, taking all things into consideration, for heating a hospital, or indeed any other tent, is some form of the "California furnace," so called. This is neither more nor less than a deep hole in the ground, at one end of the tent, for a fire-place, with a broad covered trench emerging at the other end for a chimney. The cold-air flue is a smaller trench from the outside, entering the fire-place opposite to the chimney-flue. The ground in the neighborhood of the furnace and chimney trench soon becomes heated, and retains the heat for a long time, giving a very pleasant and equable temperature. My own tents are furnished with a stove, or rather, I may say, have been furnished with a series of stoves, for the number of experiments I have tried in the so far vain search for a reliable one would have astonished Franklin. I have tried his philosophy, and every other philosopher's philosophy, and nothing but such an accumulation of philosophy has made me philosopher enough to refrain from suicide. One should have been born a Sioux or an Esquimaux to endure it. A slight breeze makes a kind of bellows of the flexible walls of my domicil, so that a large part of the time my last, and, as I had fondly hoped, my finally *perfect*, invention, draws the wrong way, much to the disgust of "contraband," who don't quite like cutting so much short wood to make smoke of. *He* believes in a huge camp-fire outside, with a large bed of hot ashes to toast his rockers in. When I go out to breathe and recover my eyesight, and see him sitting so comfortable, I am forced to exclaim, with tears in my eyes, Poor fellow, ignorance is bliss, *he can't* write.

Taking the Division as a whole, the men are well clothed. Their greatest discomfort is at night, and when the tents and the blankets both happen to be thin, as they sometimes are, it is only remarkable that the sick list is no larger. The weather is now cold, uncomfortably so. The morning of the review I saw ice one eighth of an inch thick; and a few days since, enough snow fell to whiten the ground. I know of nothing in the way of contributions which would be so useful as good woolen socks and drawers.

We have had a general inspection of ambulances lately, and such specimens of job work as many of them were, would amaze you. Some of the *new* ones, even, were shameful. The inclined planes of the stretchers, made of light wood, have already warped, and many of the slats are broken. They should invariably be made of hard wood. Yes-

terday, one new ambulance, from New York, was reported to me as having already failed, the sides of the body having *warped* off from the end boards. There were no screws or dove-tailing or braces to secure it, light brads instead of screws answering the builder's purpose. Those I have seen from New York are very heavy, requiring on these roads a tandem horse. I have seen no two-wheeled ambulance which I like so well as those which first came from Massachusetts, built at Roxbury. Having had something to do with their construction, I may not be an impartial judge. I see that some new contractor has substituted narrow for broad wheels. This is a mistake. At the best, a two-wheeled ambulance is for many reasons inferior to the four-wheeled vehicle.

It is to be hoped that eventually such changes may be made by Congress in the present laws, as will ensure the Medical Department of the Army a more independent existence. This change has long been sought for, and, if obtained, greater efficiency in these arrangements may be expected. As it now is, the Medical Department is held responsible for many things over which they really have no control.

The length of this epistle, my dear doctor, appals me, but I have no time to write another, or to condense this, so please to take it as it is.

Yours truly,

GEO. H. LYMAN.

[The following is the report of Dr. Morison, Surgeon of the 2d Maine regiment, referred to in the preceding letter.]

HEAD QUARTERS, 2D MAINE REG'T VOLUNTEERS, }
HALL'S HILL, VA., OCT. 31st, 1861. }

THERE have been in this Regiment, during the last two months, a number of cases of "sore throat." Most of them appeared immediately after a storm, especially among those who had been on guard at night, or on picket duty, and exposed to the combined influence of cold and moisture; though some were without any such influence, that I could ascertain. At first there would be a slight difficulty of swallowing, with a general tumidity and redness of the fauces. Very soon the uvula would be much elongated and enlarged, and the tonsils highly inflamed, with patches upon them resembling "aphthæ," the size of half a dime, usually upon one tonsil only, but sometimes upon both. These patches often spread very rapidly, so that, in the course of twenty-four hours from their first appearance, they will cover both tonsils, and nearly the whole intervening space, and the surrounding parts be so much swollen that there is great difficulty in swallowing even a drop of water. Soon afterwards, the membrane will be detached, either wholly or partially, leaving the parts underneath of a deep-red and sometimes almost a purple color. The cervical glands are liable to swell, and the neck in front to become full and œdematous, though this does not usually occur until two or three days after the first symptoms present themselves, nor are there during the first few days any decided symptoms of a typhoid character. These only appear in very severe or prolonged cases. There have been, within the period mentioned, in the Hospital connected with this regiment, eight cases presenting symptoms similar to those described, though with considerable variation, which I have had no hesitation in pronouncing genuine diphtheritis or "diphtheria," and a large number, showing premonitory indications of the same disease, which have been speedily subdued by local applications of nitrate of

silver, tannic acid, chlorate of potassa and persulphate of iron. The same local applications have been made in more advanced stages of the disease, and tonics and stimulants have been given freely as the typhoid symptoms seemed to predominate.

There have been no fatal cases at our Hospital, though one patient died at the General Hospital, in a day or two after being sent there. In that case there was severe epistaxis, and likewise a large abscess in the fauces, though neither of these symptoms was present in any other case. Two patients with this disease, well marked, were sent to the General Hospital Oct. 29th, and there are now in the regiment, in quarters, two or three cases of a mild form.

S. B. MORISON, *Surgeon.*

ARMY SURGERY ON THE BATTLE FIELD.

To the Editors of the Boston Medical and Surgical Journal.

A LONG and most interesting letter, from a very dear friend, contains such a graphic narration of the adventures and duties of an Army Surgeon on the field of "stricken" battle, that, *without* the writer's permission, I venture to send you some extracts for publication. I do so the more willingly as it is proper that the profession should know (and his most unfashionable modesty will prevent its being made aware, unless in some such way) of the distinguished professional services rendered on the field, after the disaster at Ball's Bluff, by the Surgeon of the Massachusetts 20th Regiment.

H. A. M.

Roxbury, Dec. 2d, 1861.

{ CAMP BENTON, NEAR POOLSVILLE, MD.,
Nov. 23d, 1861.

* * * * *

The part that I had to play in the performance I will undertake to relate, and being wholly professional, may interest you. On Sunday, the 20th of October, I procured a pass from Gen. Stone to visit Col. Gordon's and Col. Webster's camps, it being the first time that I left our camp, except to go to Poolesville or our outposts on the river, since coming from Massachusetts. I called on McLean Hayward of Webster's regiment, and Capt. Greely Curtis of Gordon's. I was in Curtis's tent, in the evening, when an officer came in, just from Poolesville, with the news of a forward movement, and that the 20th regiment had marched. Of course, I immediately started for our own camp, about 9 miles distant, and on arriving there found the news to be true, Col. Palfrey being left in command of the camp, with two companies. Dr. Revere had gone forward with the regiment. My own orders were to remain at the camp, until further notice, when I should go on with the ambulance wagons. I got everything in readiness for a quick start, but was not disturbed that night. The next morning, at a quarter before nine, I received a note from Dr. Revere, asking for brandy and ammonia. I immediately gave orders to the ambulance train to move down towards Conrad's Ferry, and we were off in fifteen minutes after receiving the note. We had some little delays on the road, from the breaking of two ambulance wagons, one of which had to be sent back and repaired at a blacksmith's; the other was fastened up again in a hurry with leather straps, and kept on. It happened that this particular wagon did good service that day and the next.

The road to Conrad's Ferry was blind, through wood, and very rough, and our progress was so slow that I left the train in charge of the hospital steward and went on alone. On arriving at Conrad's Ferry, and crossing through a muddy culvert under the canal, I emerged on the tow-path of the canal, where I encountered an officer in colonel's uniform, of whom I inquired for the Massachusetts 20th. He was too drunk to understand my question, but a sergeant standing near told me that the 20th had embarked, about a quarter of a mile below, towards Edward's Ferry. I started for the place, and going down met my ambulance train coming up on the opposite side of the canal. I gave orders that the wagons should remain where they were, opposite the point where the troops embarked, got the hospital steward across the canal in a skiff with one assistant, bringing instruments and a box of brandy, ether, chloroform and ammonia, and went down to the water's edge, only a few rods from the canal, where after some difficulty I got possession of a skiff, and crossed with the hospital steward. There was great confusion on the river bank at the time. One or two of the ill-contrived scows were slowly crossing the river at the same time. Gen. Baker, standing on the bank, gave us permission to take the skiff. My hospital steward (who is here while I write) tells me that the officer in question was Gen. Baker, a fact which I did not know before; he also tells me that he heard Gen. Baker give a verbal despatch to Gen. Stone to the following effect:—that he had had two ropes fastened across the river and two canal boats moved into it, and that as soon as he had moved a sufficient number of troops across he should make a forward movement. Now this testimony of the hospital steward, entirely new to me, as I have never spoken with him on the subject before, is, I consider, reliable. There were no ropes stretched across the river when I crossed, and no canal boats, only those two miserable scows, which I mentioned, were tediously attempting to cross; one of them was waiting for proper setting poles, and Gen. Baker called for carpenters to cut saplings for the purpose, and at the same time that he was doing so, he also dictated his despatch to Gen. Stone. I crossed the river without any misadventure, and made my way to a couple of stone buildings that were used as a hospital, and there I found Dr. Haven, of the 15th Massachusetts, hard at work in the midst of wounded men, among whom was one Sergeant Riddle, of our own regiment, who had received a compound fracture of the radius and ulna, the ball passing across from near the origin of the supinator longus to about three inches below the elbow on the line of the ulna. The arm was amputated about two weeks ago—the elbow-joint having become severely inflamed. I found in Haven a college acquaintance, and I stopped with him to give him what aid I could, as long as I thought I ought to, when I started for the river bank on the Virginia side of the island, for the purpose of crossing and joining our regiment; but I was immediately met on the outside by more wounded men, who were now coming in pretty fast, and who implored me to such a degree to attend them, that I could not refuse. I made three such attempts to gain the river bank, and on the third was met by a party bringing in Capt. Putnam, of the 20th, with a shattered humerus. Of course I turned back with him, and, on examination, having etherized him, and finding the arm to be destroyed, amputated at the shoulder, with the assistance of Dr. Haven.

Wounded men of our regiment now came in fast, as well as those

of the 15th, the Tammany and Californians—Lieuts. Holmes and Putnam, Capt. Schmidt, Capt. Dreher, Lt. Col. Ward of the 15th, whose ankle was shattered. I amputated the foot, with Haven's assistance, under the miserable light of wicking and grease in a tin plate. One other amputation of the hand, and two or three fingers and phalanges, were all the operations performed that night at the store houses. These houses were filled with the wounded to repletion; many lay on the ground outside, and many were moved to the main land directly from the battle ground. Shortly after dark, Dr. Bryant came to the Hospital, but until that time, Dr. Haven and myself were there alone, except for a few minutes when I was at work on Capt. Putnam, I saw a surgeon, who spoke with me about his case, but who disappeared and did not return. Dr. Crosby also came in the evening, and left shortly after, to make arrangements for the transportation of the wounded, as it was quite right that he should do; he had established a depot on the main land. It was with the greatest difficulty that we could get men to move the wounded down to the river. All the litters and their bearers left, but did not return. The hospital buildings fortunately were full of doors, and every one of these was torn down and used for a litter. The Tammany men behaved in the most despicable manner. They could not be induced, by threats or promises of reward, or accusation of cowardice, to help in removing the wounded, and as it was anticipated that the building would be shelled by day-break, it was necessary to remove all the wounded before that time. As it happened, the building was not shelled. Lieut. Beckwith, of the 20th, and company B, of Germans, carried our wounded down to the river, and we got the last man to the water's edge as the day broke. I went down with the last, Capt. Putnam, and there lay sixteen poor wounded fellows out of doors, in a chill drizzling rain, while the miserable Tammany fugitives had seized the scows as often as they came across, and immediately filled them up, giving no chance whatever to the wounded. Many of these Tammany men had swum the river, and as they cowered over the fire at the Hospital, nearly naked, they seemed the most utter wretches I have ever encountered. Our own fellows, who were in the same plight, took hold of the litters and helped; but I doubt not many of them took the first opportunity to cross the river, leaving the wounded behind. When our boat-load of sixteen men reached, at last, the other side of the river, we had again to wait a full hour in the open scow, before we could get assistance. Our own good fellows had been left behind in charge of the island. A Pennsylvania regiment occupied the shore where we landed, and such utter selfishness as they displayed in shirking the little labor of conveying these sixteen wounded men to a canal boat near by, I never saw equalled. They had not the excuse of bodily fear, as the Tammany men had, although theirs was irrational. The work was done by some half naked men of our own, and Duryea's men. The band of the 15th Massachusetts also showed the white feather on the island that night, in refusing to carry the wounded, and making tracks for the boats to fly to the main land. No order or authority seemed to exist in the management of the scows. I was obliged to threaten with my revolver, to keep loafers away from the boat which took our last load of wounded; and the chaplain of the 15th was obliged to knock down some "*sallywag*" with the butt of a musket for the same attempt. In the morning there were two ropes stretched

across the river. But, as I said before, on the previous afternoon there was no rope across the river when I passed. I had occasion to send back the hospital steward for some ambulance attendants, about three quarters of an hour after my own crossing, and then, he tells me, there was a light line stretched across, which, however, broke, and allowed the scow that was attempting to cross, to drift far down below the landing. Dr. Bryant crossed just before day broke, with some wounded men, and got a canal boat to transport the whole to Edward's Ferry, on the Canal. The roads were too heavy, and the distance too great for wounded men to be taken in ambulance wagons, which, by the way, are the most infernal racks of torture. The canal boat got safely to Edward's Ferry, and from there, those of the wounded in my charge, who had not gone on before, were taken to our regimental hospital, about one mile and a half from the ferry. Two men died very soon from mortal wounds—Lieut. Putnam and private Stackpole. Six of our men had been taken to Dr. Crosby's hospital, and three remain there still. One brought from there, with a compound fracture of the humerus, was operated on, by myself, too late; three inches of the humerus were exsected. Perhaps he would have lived had the arm been amputated. He died a week after the operation, the wound having assumed a very bad appearance, drying up and shrinking, and secondary hæmorrhage having ensued, from what cause I do not know. Five amputations of leg or arm were performed after the battle, at our camp. I am anxious as to the result in one—Barber, amputation above the elbow, three weeks after the battle. It was deferred too long; he is improving, however, within the last two days. The other cases are going on well. We had, all told, of wounded men, counting scratches and all, 53. Of these, a number have gone home on furlough. We have now at the hospital 10 wounded men. One only will probably require an operation; he was wounded from the inner condyle of the femur to three inches below the head of the fibula, the ball fracturing that bone, passing between it, apparently, and the tibia, and was extracted on the fibular side and some loose bone removed. He would not have the leg amputated, and he may, after a very tedious time of it, recover without amputation. Of the remaining nine, all will be sent home on furlough, with the exception of those who were operated on—four in number—and perhaps two of those, as soon as arrangements can be made with the presidents of railroads between here and Boston for their convenient traveling. We propose sending them by canal to Point of Rocks, which is within a few yards of the railroad track of the Balt. and Ohio R. R.

* * * * *

Yours truly,

NATHAN HAYWARD.

TREATMENT OF SEA-SICKNESS.—Thos. M. Hocken, M.R.C.S., and formerly of the ship *Great Britain*, uses the following in cases of sea-sickness:—"Dilute hydrochloric acid, two drachms; dilute nitric acid, one drachm; hydrocyanic acid (Scheele's), sixteen minims; sulphate of magnesia, six drachms; water to eight ounces. Two table-spoonfuls to be taken every three or four hours." Previous to its administration he gives, as he says in the *Lancet*, "a sound purge of calomel and colocynth, or of croton oil on sugar, taken with as little water as possible. Diet, gruel, sago, or arrowroot, with a little brandy, and dry toast and tea.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 12, 1861.

THE occasion referred to in the paragraph below was one in which we all should have been glad to have participated; and particularly those of us who have had the good fortune to be pupils of the great German teacher, who holds a pre-eminent place in the world of medical science, as well as in the hearts of all to whom he is known.

MESSRS. EDITORS,—The following extract from a Vienna Journal, will be read with pleasure by all who have been fortunate enough to listen to the teachings of this great master. To those familiar with the past restrictions upon student life in Austria, will be apparent the wonderful power of a single man in having thus burst the bonds beneath which they have been pressed down since the revolution of '48, and raised them to free thought and action again. J. C. W.

“On Saturday evening, Oct. 19th, there was celebrated in the great festal hall of the Imperial Academy of Sciences the installation of the new University rector, Ritter von Ettingshausen. An unusually large number of students, all the dignitaries of the schools, and an imposing circle of men of science, were in attendance. The Minister of the Interior, Ritter von Schmerling, was also present. The retiring rector, Prof. Oppolzer, greeted by the loud acclamations of the assembly, mounted the tribune at 6 o'clock, and gave, as is the custom, a review of the transactions of, and changes in the university life during the past official year. We learned that the university had been attended by more than 3000 students during the last semester; that the Minister of the Interior had assured him at an audience, that he would use his utmost endeavors that the 500th yearly celebration of the university (1865) should be held in a new university-building; and finally that there was no longer any opposition to the conferring of “student's cards” for the protection of the personal freedom of their possessors. In conclusion, Prof. Oppolzer turned with words of fervent friendship and attachment to the students, asking them to keep him in their most friendly remembrance. Thundering applause and countless vivas followed the last words of this universally-beloved and revered man. Hereupon the new rector, Von Ettingshausen, made a short address, which fell coldly upon the ears of the audience. At the end of the ceremony, the hall resounded once more with countless huzzas (hochs) for Prof. Oppolzer and the Minister Von Schmerling. After the close of the installation, a truly imposing torch-light procession put itself in motion, accompanied by an innumerable multitude of men. Halt was made at the Exercirplatz, and by the sound of drums it proceeded to the house of Herr Prof. Oppolzer, where a serenade was performed by the Academic Glee Club. ‘*Ein deutsches Herz,*’ ‘*Deutschland über Alles,*’ and ‘*Gaudeamus igitur,*’ were sung. A deputation expressed thanks for his encouragement of the already existing institute, and for the ‘creations’ which had sprung into life during his rectorate. He, on his side, assured them that he should always keep in his remembrance this the fairest hour of his life. The march home-

wards proceeded without interruption as far as the Glacis, where the torches were extinguished, and the multitude dispersed. Seldom has such a distinction been awarded to a physician, in which not only the students, who love the man thus honored as a father, but also a great part of the inhabitants of our capital, took an active part. Oppolzer's deserts, however, both in relation to the university and to mankind, are extraordinary."

INDIA-RUBBER STOPPERS FOR BOTTLES. *Messrs. Editors*,—Will you allow me to call the attention of the profession, through your pages, to a recent invention which promises to be of great convenience to physicians, as well as to all other classes of the community. I refer to the India-rubber corks for bottles and vials. By means of this admirable substitute for the common cork, bottles containing the strongest acids may be carried without danger in the pocket, and the great inconvenience and expense of ground-glass stoppers obviated. The vulcanized rubber of which they are made will resist, I believe, all chemical agents. I have kept a bottle of concentrated sulphuric ether, closed with one of these stoppers, inverted for several days, without the slightest visible effect being produced on the gum.

For alcohol, solutions of nitrate of silver, tincture of iodine, the various mineral acids, and, indeed, for all liquids, the India-rubber stopper is more than a convenience, it is a positive luxury, as, I am confident, all will agree who have tried it. To practitioners in the country, who carry their own medicines with them, it will be of inestimable advantage. In the sick room, also, the new stopper is of very great utility. By means of it, bottles containing effervescing fluids, such as champagne, citrate of magnesia, soda-water, &c., can be tightly corked again after having been opened, so that small quantities of their contents may be used at a time without the slightest detriment to the remainder. Lastly, and not least, these corks are sold at a price which will place them within the reach of all. M.

Boston, December 7, 1861.

HARTFORD ASYLUM FOR DEAF MUTES.—From the Forty-fifth Annual Report of the Directors of the Asylum for the Deaf and Dumb at Hartford, it appears that "the number of pupils in attendance within the year ending May 11th, 1861, is two hundred and sixty-five; the greatest number present at any one time, two hundred and twenty-eight; and the average attendance through the year, two hundred and twenty-four. They have been taught in fourteen classes, in charge of the same number of teachers. Daily instruction in articulation has been given by the teacher in that department to those who either have partial hearing, or who have some ability to use the speech acquired before the hearing was lost. Those who were born deaf, and those who lost their hearing before they had learned to speak, are taught by signs and the manual alphabet only. The teaching of such to articulate is not attempted.

DISCONTINUANCE OF MEDICAL JOURNALS.—The *Cleveland Medical Gazette* is not to be issued again, after the December number. Dr. Gustav C. E. Weber, Professor of Surgery in the Cleveland Medical College, has edited the work with much ability. For some time past, the *Cincinnati Lancet and Observer* and the *Cleveland Medical Gazette* have

been literally one and the same thing, being printed from the same type, with alteration of title, &c. The former is to be continued.

The *St. Louis Medical and Surgical Journal* also contains a notice, in the December number, of its suspension for the present. Its able Editors, Drs. Linton and McPheeters, give their reasons for this course, which have their origin in the civil commotions of the country.

The *North American Medico-Chirurgical Review*, edited by Prof. S. D. Gross, of Philadelphia, has been discontinued, as we learn by the last number of the *Medical News*. The November number of the *Review*, containing, as we understand, Dr. Gross's Valedictory, was not received at this office.

GEO. H. DADD, a well-known veterinary surgeon, formerly of Boston, now of Cincinnati, publishes in the *Daily Commercial* of that city some valuable hints respecting the proper care of the cavalry horses in the U. S. Army. He advocates the establishment of a veterinary school at West Point, and, to supply the immediate necessity, the appointment of competent veterinarians for each regiment, the erection of temporary hospitals, &c. A sale of condemned horses lately in Washington, resulted, it is said, in a loss of over \$200,000 to the government.

NAVAL MEDICAL BOARD.—The Naval Medical Board, composed of Surgeons John A. Lockwood, Charles H. Wheelwright, and John Y. Taylor, continues its sessions at the Naval Hospital, Brooklyn. Forty-eight candidates have been reported qualified since the 1st of August. Ten more are required to fill existing vacancies. Qualified medical men under 26 years of age, wishing to enter the Navy, should apply to the Hon. Gideon Welles, Secretary of the Navy, for permission to appear before the Board for examination, stating age, place of birth, and actual residence, accompanying their request with testimonials of moral character. The following gentlemen have been found qualified since the last publication:—Thomas N. Penrose, Penn.; Samuel W. Abbott, Mass.; Edward C. Ver Meulin, N. J.; Thomas Hiland, N. H.; Newton H. Adams, N. Y.; George D. Slocum, N. Y.—*Med. Times*.

THE NUMBER OF CANDIDATES who have applied to the Medical Examining Board of the State of New York, is 431, of which 203 passed as Surgeons, 155 as Assistant Surgeons, and 69 were rejected. The Board consists of Drs. Hun, March, and Cogswell, of Albany.

HYDRARGYRUM CUM CRETA.—From a Historical and Analytical Report on this drug, read before the *Berkshire Medical Society*, by Dr. Samuel Duncan, of Williamstown, and published in the *Berkshire Medical Journal*, we extract the following useful hints:—

1st. When this preparation of mercury is exposed to the light, especially during the summer, a portion of the suboxide which it contains is decomposed into the metal and red oxide (protoxide), which, in sufficient quantity, always acts as a violent instant poison.

2d. That the older the preparation, and longer the exposure to light, the less the mercury, and greater the amount of oxide.

3d. That in order to have a perfectly reliable article of hydrargyrum cum cre-

tâ, it should be made of pure material, kept in a cool place, and excluded from the light.

4th. That freshly made and light-colored specimens are best, and those of a deep color should be rejected.

5th. That this preparation is unstable; that it tends to separation by the volatility of its mercury, and the superior mobility and gravity of its particles.

6th. That we have no reason to suppose that mercury, however pure, exerts any influence on the system in its metallic state; but that it must first be converted into an oxide, and this oxide must be basic to a soluble compound; and that the amount of suboxide in hydrargyrum cum cretâ is not at all injurious, providing, however, it remains as such; and that when this preparation proves an *irritant in itself*, it is due to a higher degree of oxidation.

VENTILATION.—M. Tardieu, speaking of the ventilation of the Hospital Lariboisière, by means of which 130 cubic metres of air are distributed to each patient per hour, and which has cost so large a sum of money, observed that this superb ventilation, joined with the other excellent hygienic conditions of the hospital, has not protected it from the invasion of infectious diseases, erysipelas, purulent diseases, puerperal fevers, &c., which decimate the other hospitals of Paris.—*British Med. Journal*, August 10th, 1861.

We learn that we were in error in stating, in our notice of Dr. Morland's Prize Essay, that its publication was due to him. All successful essays become the property of the Trustees of the Fiske Fund, and if published must be published by them.

We see, by the newspapers, that Dr. George Derby is performing the duties of Brigade Surgeon in the Division to which his regiment—the 22d—is attached. We should be happy to learn of his permanent appointment to this post.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 7th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	45	39	84
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	36.4	35.0	71.4
Average corrected to increased population, . . . . .	..	..	80.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	1	2	3	8	0	0	1	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Nov. 30th.

Mean height of Barometer,	29.719	Highest point of Thermometer,	44.0
Highest point of Barometer,	30.056	Lowest point of Thermometer,	26.0
Lowest point of Barometer,	29.394	General direction of Wind,	N.N.W.
Mean Temperature,	54.0	Am't of Rain (inches), including melted snow,	1.216

COMMUNICATIONS RECEIVED.—Consultation with Homœopathists.

PAMPHLETS, &c. RECEIVED.—The Transactions of the New York Academy of Medicine, Vol. II., Part VIII.; containing an Essay on the Use of Anæsthetics in Midwifery, by B. Fordyce Barker, M.D.—An Effort to shorten the Duration and Diminish the Pain of the first Stage of Labor; with a Record of 147 Cases; by B. Fordyce Barker, M.D., Obstetric Physician to Bellevue Hospital.—The Annual Report of the New England Female Medical College.—Lewis's Gymnastic Monthly and Journal of Physical Culture. Boston. No. I., Vol. II., for January, 1862.

DIED.—At Braintree, 7th inst., Dr. Jonathan Wild, aged 77 years 8 months.

DEATHS IN BOSTON for the week ending Saturday noon, December 7th, 84. Males, 45—Females, 39.—Accidents, 7—apoplexy, 2—disease of the bowels, 1—congestion of the brain, 3—disease of the brain, 2— inflammation of the brain, 1—cancer (of the stomach), 1—cholera infantum, 1—consumption, 15—convulsions, 3—croup, 2—diarrhœa, 1—dropsy, 2—dropsy of the brain, 1—dysentery, 2—scarlet fever, 3—typhoid fever, 1—gastritis, 1—hæmorrhage, 1—disease of the heart, 4—hernia (strangulated), 1—infantile disease, 1—disease of the kidneys, 1—congestion of the lungs, 3—inflammation of the lungs, 8—malformation, 1—marasmus, 3—old age, 1—peritonitis, 1—syphilis, 1—thrush, 2—unknown, 4—whooping cough, 1.

Under 5 years of age, 38—between 5 and 20 years, 5—between 20 and 40 years, 17—between 40 and 60 years, 13—above 60 years, 11. Born in the United States, 58—Ireland, 22—other places, 4.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXV. THURSDAY, DECEMBER 19, 1861.

No. 20.

“THE CONNECTION BETWEEN CEPHALIC SYMPTOMS AND ORGANIC LESIONS, IN CHILDREN.”

[Read before the Norfolk (Mass.) District Medical Society,* November 13th, 1861, by B. E. COTTING, M.D.,
of Roxbury.]

IN repeating the proposition offered for consideration, it will be noticed that the subjects specified are children; the symptoms given, cephalic; the solution sought, the anatomical conditions or changes which underlie or induce the outward manifestations.

If, then, we find in a child previously healthy the following *reputed* cephalic symptoms, coming on with marked severity and regularity, viz.:—sudden high fever, ushered in, perhaps, by convulsive agitations; a sharp, frequent pulse; irregular respiration; moaning; staring, injected eyeballs; unusual irritability of temper; great apparent headache, increased by motion, the patient steadying the head by the hands; piercing cries, as of severe and darting pain; great sensitiveness to noise and light; strabismus, or unsteady pupil; great restlessness; twitchings of the face and muscles generally; frequent vomiting, without pain or tenderness in abdomen, often without apparent nausea, and without subsequent relief; constipation, more or less obstinate—if we find such a general combination of symptoms, we may have good reason to infer that they are connected with an inflammatory process going on within the cranium, that the pia mater is the principal seat of this inflammation—constituting the disease usually called by the latest writers ACUTE MENINGITIS; and we may also infer that this inflammatory process is accompanied, in the membrane involved, by redness, fulness even to swelling (congestion, so-called)—at first dryness, and then exudatory moisture.

And furthermore, if the disease continues to increase, and (not brought to a rapid termination in severe convulsions) goes on,

* It is customary in this Society to propose questions for discussion, and to appoint members (in alphabetical order) to open the discussion by written papers. The following was written in obedience to such a call. Without any special pretensions to originality, the writer, in expressing his own opinions, has not hesitated to avail himself of whatever suited his purpose from others—Reynolds, Wilks, &c. &c.

with varied and irregular intermissions, to loss of perception; paralysis; general muscular relaxation; dilated pupil; stertorous breathing; feeble, fluttering, intermittent pulse; sunken face; retracted abdomen; involuntary discharges; general prostration, and death—a *post-mortem* examination will show the cerebral membranes more or less intensely injected, but smooth or not granular; the surface of the brain covered in part, or whole, with lymph originating from the membranes; lymph often purulent, sometimes filling the interspaces or concealing the convolutions by its amount. This lymph is found under the arachnoid, and usually less towards the base of the brain, but in exceptional cases the base seems to have been the seat of the attack, and to be covered with the larger quantity.

Generally little or no change can be discovered in the ventricles, excepting now and then an increased amount of serum. The brain-substance, adjacent to the meningeal inflammation, and evidently disturbed by it as the symptoms indicated, does not always exhibit morbid changes after death. It is sometimes, however, injected or softened. The arachnoid is also occasionally affected, presenting a dry or sticky surface.

This disease is rare. A general practitioner is not likely to see, in his own practice, more than one or two cases in a lifetime. West, with all the advantages of a hospital and a specialty, saw but *seven*, and these were all fatal. The duration of the disease is short—it may be not more than three or four days.

If now, on the other hand, we find in a child of previously unhealthy tendencies, cephalic symptoms somewhat similar to those just enumerated, except, perhaps, that besides being less abrupt and violent in their onset, they are less rapid in their progress—having been preceded for some time by slight febrile disturbances, dull pain in the head, giddiness, uncertain or staggering walk, restlessness, peevishness and the like, most or all of these so slight, perhaps, as to have scarcely attracted a passing notice—if, with such antecedents, we find obstinate and unprovoked vomiting, constipation, often a short hacking cough—more or less of these symptoms intermitting at irregular intervals, and recurring with increased severity, with greater pain, wandering delirium, drowsiness, &c.—from intolerance of disturbance to loss of perception, convulsions, hemiplegia, and finally general paralysis—accompanied by a rapid, declining pulse, cold extremities, and at last *death*; if we find such a series progressing in a child which has in itself or through its progenitors a tendency to scrofula, tubercular formations, or other kindred debilitating affections, we may be quite sure that we have to deal with TUBERCULAR MENINGITIS; and that the cephalic symptoms exhibited, whether simple or complicated, arise from the development and growth of tubercular disease in the meninges, communicating a disturbing influence to the cerebral substance.

After death there will be found, in a large majority of cases,

lymph at the base of the brain, always tubercles in the pia mater, serous effusion in the ventricles, in a greater degree than in the previously described affection; accompanied usually, though not always, by some perceptible softening or other morbid condition in the adjacent portions of the cerebral substance itself. Often-times confirmed tubercular deposits in other organs, especially the lungs, leave no doubt of the true character of the disease.

The duration of the disease is generally two or three, or more, weeks after the symptoms are well confirmed. It is not an unfrequent disease. Every physician is liable to meet with one or more cases every year of his practice. And from what has been said, it may be inferred that it seldom if ever occurs as a primary affection; and that it must of necessity, usually if not always, have a fatal termination.

This is the disease which Whytt (who a hundred years ago gave a very graphic description of it) called *hydrocephalus internus*, from an occasional though by no means constant result of its inflammatory action. He was not so unphilosophical as to give it the absurd title of *acute hydrocephalus*, which has been attributed to him.

Tubercular meningitis is the most common and well-marked encephalic disease in children, and such are the connections between its symptoms and the lesions which observation has revealed.

It is not uncommon for authors to call the diseases we have described meningitis and arachnitis indiscriminately, and to speak of the latter as a frequent affection, but it is our belief that *arachnitis*, uncomplicated, that is, a simple primary inflammation of the arachnoid membrane, is a very rare disease—so rare that some of our most experienced pathologists have never seen a case of it. Whenever adjacent inflammation extends to the arachnoid, it seldom produces any other perceptible lesion than a little greasy or sticky feeling on its surface; and the connection of such lesion with pre-existing symptoms is so obscure or so slight as to be of little practical importance. In general those affections of the arachnoid, which become of clinical importance, arise from disease, or external injury, of the dura mater, and are to be studied in connection therewith.

INFLAMMATION OF THE DURA MATER, so far as known, is a result of injury or disease externally affecting the bony structures of the head.

CEREBRITIS.—The “cephalic” symptoms usually ascribed to this affection are dull headache, vertigo, numbness, confusion of thought, defective muscular motion, silliness or want of expression, impaired speech, partial or general paralysis, obscure or partial convulsive movements, rigidity, &c. When such symptoms occur either by themselves or in connection with any other affection (meningitis, for instance) there is thought to be reason to suspect more or less active inflammation of the brain, and that

its substance will be found after death in a disorganized or softened state. But such anticipations are not always confirmed.

CONGESTION—an early anatomical condition of meningitis—when existing by itself (if ever) may exhibit more transitory symptoms than a confirmed disease. There may be, perchance, less vomiting. Constipation may be accidental. Full pulse and other signs of plethora may be present; and, in general, the obscure indications of congestion may not unfrequently be referred to a distant and perhaps far different affection. But we must not expect tangible *post-mortem* proofs of congestion, as, from the nature of the case, our evidence of its previous existence must be mostly clinical. Dr. Gooch has given evidence to prove that heaviness of the head, and *drowsiness*, attributed “inveterately” to congestion, really depended, in his cases, upon a deficiency of nervous energy; also, that the state of the eye (dilated, motionless) resembling that resulting from *effusion*, as supposed, was in reality due to a deficiency in the circulation of the brain. Marshall Hall and Abercrombie have also described such anæmic cases, arising from derangements of the digestive organs.

EFFUSION, sometimes called *chronic hydrocephalus* when long a prominent symptom, can hardly be called an organic lesion, although often spoken of as such, but rather the result of a number of various and even opposite pathological conditions. Though the morbid change may be too slight or too obscure to be demonstrated after death in the parts containing the effused liquid, still simple *passive exudation* unpreceded by some such change, is hardly supposable, even on the loosest theory of functional derangement only. As effusion into the chest is now ascribed to previous latent disease, however slight and unobservable its symptoms, so encephalic exudation must have a similar origin, though its occasion may be in a distant locality. Moreover, effusion is often only an attendant upon a moribund state—a mere closing up, it may be, of some remote affection (*cholera infantum*, for instance)—a mortuary result, not a previous complication.

Special symptoms as indications of specific organic conditions are, we fear, hardly worthy of the reliance often placed in them. *Dilated pupil* as an evidence of effusion; *contracted*, when fluid exists in large quantities at the base of the brain, or into the pons Varolii, are states not permanent in the same individual case, but often alternate from unknown or very slight causes. The *half-closed eye*, covered where exposed with mucoid film, thought by some to be a reliable diagnostic of disease of the brain, we recently found wholly delusive in a very marked instance.

Hemiplegia may depend, as asserted, upon a greater softening, or disorganized condition of one side of the cerebrum than the other, but every one, who has tried to prove this, will acknowledge the difficulty.

Paralysis may probably be attributed, with reason, to the giv-

ing way of the central portions of the brain, as 'is generally supposed.

Convulsions, on the contrary, are said to have their origin in causes affecting the surface of the brain; but their causes, various and apparently dissimilar as they often appear, may nevertheless produce similar cerebral disturbances, either through direct or reflex movements in the nervous system.

CONVULSIONS are striking symptoms—symptoms only—of diseased changes taking place, perhaps within the cranium near the seat of their origin, or in other and possibly very distant parts of the body. Whatever may be the part of the acting nervous material of the brain-substance, which under an influence we will call cerebral disturbance, for want of a better term, gives rise to convulsive agitations, it is not unlikely that this peculiar disturbance is brought about whenever any disease is accompanied by convulsions. To this disturbance, and not to any organic lesion necessarily connected with the disease in question, whether such disease be near the brain or far from it, we must ascribe these convulsions. Thus may be accounted for, not unphilosophically, the convulsive movements occurring in gastritic as well as in meningitic diseases, and the fact also that these movements are not uniformly nor necessarily attendant upon any of such diseases. Thus, too, may be explained the temporary or paroxysmal characters of convulsions generally.

Taking such views, and remembering the greater nervous development and susceptibility in children than in adults, we may understand why a disorder or a disease, which in adults would ordinarily be ushered in by *rigors*, may commence in children with convulsions—the convulsions as well as the rigors not indicating the disease, but only the coming on of some affection to be thenceafter made apparent.

So, also, when in the course of any disease, an increase or metastasis is taking place, and we have in adults a repeated rigor or marked delirium, we may expect in children an onset or recurrence of convulsions.

In all cases the convulsions must be considered as consequences of a disturbance in the acting material of the brain, and not the cause of the incoming, changing or rapidly increasing severity of the disease. In the one case they warn us to look out for an approaching or newly-arrived evil, of slight or serious character it may be; while in the other, in the course of any disease, they generally announce impending danger, not from themselves merely, but from an increase, or unfavorable advance, or complication of the affection then in progress.

Of the number and variety of the diseases or morbid conditions which induce or are accompanied by *convulsions*, every one in active practice must have had sufficient experience.

Finally and generally, as the functions of the brain must depend

essentially upon the peculiarities of the cerebral structure and not upon the membranes, any derangement of function implies a primary or secondary change in the acting nervous material itself. This change may not be any the less organic because we cannot discover it after death; but we should not forget that the symptoms of such change, cerebral symptoms, are not due, as essential elements, to affections or organic lesions in other textures, however near or distant they may be. Inflammations or diseases of the investing membranes of the brain itself may exist without inducing cerebral symptoms, but the connection between the meninges and the brain-substance is so intimate, and their integrity so important, that disease in them is probably more likely to prove the occasion of cerebral derangements, though such are as truly secondary as when arising from other and remoter affections.

DR. COALE'S ESSAY ON ANEURISM.

(TREATMENT.—Continued from page 389.)

Manipulations.—Next in order of means applied to the tumor, is one which we believe was never used systematically and methodically at least, until a few years since. It is founded upon the peculiar nature of the contents of the aneurismal sac—the concentric layers of fibrine. It has been found that occasionally one or more of these layers have become detached, and, carried by the current or by gravity to the portion of the sac farthest from the heart, have stopped up the exit from its cavity.

This condition favoring the coagulation of the blood within, a cure of the disease has thus been spontaneously effected. Manipulation has been practised with a view of bringing about the same end in the same way. It consists in pressing or kneading the tumor in such a manner as to detach the layers of fibrine, or break portions of them loose, and then direct them to the distal end of the cavity, so that they may arrest the current through the sac. This proceeding was first devised and carried into execution by Mr. Fergusson. He had, after conceiving the idea, looked for some years for a case in which manipulation, according to his views, would be the best resort, when, in February, 1852, a case of aneurism of the subclavian, outside of the scaleni muscles, came under his notice, which seemed to be a fair one for the trial. His description of the operation and its result is as follows:—

“The flat point of the thumb was laid on the aneurism, which was about the size of a hen’s egg, and when the sac was emptied of fluid blood, the lower surface and supposed contents were rubbed against each other. The pulse, which was carefully examined, was immediately arrested in all the vessels below the aneurism, and the patient became faint and giddy. In six or seven hours

the pulsations returned, but the operator repeated the manipulations the next day, with a similar but non-lasting effect upon the circulation in the arm; for it was not for seven or eight days that circulation could be detected in the fore-arm. The tumor gradually diminished in size and in force of pulsation, and various indications, particularly the gradual enlargement of a branch of the subclavian artery, * * * gave every hope that a cure was in progress." The man, seven months afterwards, "had had a feverish attack, accompanied with excruciating pain in the tumor, and died after a few days' illness. The axillary artery was found blocked up, but the tumor had extended in the direction of the axillary plexus and given way."

Another case,* very analogous, was treated in the same way a short time after, and the tumor disappeared between the twenty-second and twenty-fourth month after the manipulations.

The next trial of this method we find on record is made by Mr. Robert Little, of Lifford. The patient, aged 53, entered the hospital October 6th, 1855, with an aneurism of the right subclavian the size of a large goose egg, "occupying nearly the entire extent of the supra-clavicular region, extending from the clavicular attachment of the sterno-cleido-mastoid to the acromial end of the clavicle." The first symptom he had of it was in the previous March. It was soft and compressible, and red, and somewhat inflamed on the surface. It was treated with ice, and the patient with sedatives and bleeding. "Manipulation was commenced on the first of January, 1856, by making gentle but steady pressure with the thumbs alternately over the aneurismal sac. This displaced some of the coagula, which were then directed to the distal end of the artery. No other local treatment was adopted, but he was ordered the persesquintrate of iron internally. For the first two days, no change was perceptible either in the tumor or the arm, but on the third day the pulse was manifestly weaker, and the arm somewhat colder than the opposite one. These symptoms gradually increased up to the tenth day after the manipulation of the sac, when no pulsation could be felt in either radial, brachial, or axillary arteries." "The tumor had become more solid, and the bruit and pulsation both diminished." The arm became paralyzed and wasted. In March, pulsation having ceased, pressure was applied over the tumor. In November, it was not more than one third of its original size; the arm had regained its temperature, though it was feeble, and a slight pulsation could be felt in the radial artery. In March, 1857, the tumor was the size of a walnut. Sensation and motion were both restored to the arm. Altogether, this is a most interesting case—hopeless with any other remedy—unpromising in the extreme for manipulation from its size and situation; yet the cure was thorough and entire.†

* London Lancet, November 15th, 1856, page 539.

† Medical Times and Gazette, May 23d, 1857, page 508.

A third case is given by Mr. Thomas P. Teale (in the *Medical Times and Gazette*, March 12th, 1859, page 265), of Leeds. The patient was aged 48. The aneurism (popliteal) had existed three months—was as large as a lemon. On the 14th of November, Mr. Teale manipulated the tumor, freely kneading it in various directions. In an hour and a half it had ceased to pulsate, and had become a solid mass. On the 26th he left the Hospital, cured. The relation of this case is more interesting from the comments and cautions appended to it. Mr. Teale, in speaking to his students, warns them against attempting to use this method in aneurisms of the carotid and innominate, as with these, a small portion of fibrine might be detached and carried with the current to the brain, and there produce paralysis or other serious mischief. In illustration, he mentions a case of doubtful aneurism, examined at a consultation in 1847. The patient was a middle-aged woman, in good health in other respects. She was seated in a chair while the tumor was examined, and suddenly became pale and slid off. On being raised she was found hemiplegic, and after lingering a few weeks, died. He had no doubt that death was caused by a piece of fibrine obstructing the circulation of a portion of the brain, and, in confirmation of this opinion, refers to a paper of Dr. Kirke's, published in the *Medico-Chirurgical Transactions* for 1854, upon the effects of such obstructions and interruptions to the cerebral circulation. Dr. Kirke's paper we have not seen.

These four cases, we think, fully exhibit the nature and availability of this operation. We can readily mark the cases where it would be unadvisable to use it. When the sac is very thin, and about to yield; when it is in a state of inflammation; when it is largely affected with atheromatous deposit, making it friable and liable to rupture—conditions which we conceive, in almost every instance, can readily be detected—manipulation should not be tried. When these or other objections do not exist, we cannot but think that it is one of the most valuable remedies that we possess, in the treatment of aneurism. When judiciously and carefully used, it could scarcely do harm—at most, the danger from it which we should look for, would be inflammation, for which we have ready, appropriate, and efficient treatment; and its use, if unsuccessful, does not preclude a resort to any other operation which might have been advisable before the trial of manipulation.

Considering it an axiom that, chances of success being equal, an operation in which there is no resort to the knife is immeasurably superior to one in which there is, we do not make any comparison between manipulation and the ligature. Contrasting it with galvanopuncture, it is more simple, less painful, and its effects more controllable. It is more speedy in its results than compression, either of the tumor or the artery, and does not require such nice and prolonged management as these do; besides which, its use is unattended by the violent pain so often experienced in the appli-

cation of compression. On the whole, we rank manipulation very highly amongst our remedies for aneurism, and we regret we cannot give fuller accounts of its use, and a statistical exhibition of results from it. The only additional matter that our Journals yield us on the subject, is a discussion before the Royal Medical and Chirurgical Society, held November 11th, 1856, reported in the *Medical Times and Gazette* for that month. Mr. Fergusson read a paper explaining the nature of the operation, and what he thought it promised. Much conversation occurred, and many inquiries were made. Mr. Fergusson said, apart from the risk of bursting, (a very serious one, it seems to us), he did not see why a large aneurism should not be manipulated as well as a small one. A very small one would not promise well, because it might not contain any fibrine. The objections made by other members, were those which we have already indicated, and most were frankly acknowledged by Mr Fergusson, who, while rationally appreciative of all the advantages of this method, is evidently not blinded by enthusiasm to its defects.

Caustics Applied to the Sac.—We have but one case, and that of course a successful one, to authorize us to consider the above among the available remedies for aneurism. It seems, however, that it held out some advantages which might serve when other resorts were forbidden, and we therefore state it. It is related by M. Bonnet, of Lyons. The patient was 25 years of age, and had a traumatic aneurism of the left subclavian. The tumor was rapidly enlarging, and the application of a ligature between the inner border of the scalmi and the aorta, was deemed by M. Bonnet and his colleagues too difficult and dangerous; galvanopuncture seemed also forbidden, “because it was impossible to suspend, even for a moment, the pulsations and the bruit de souffle in the aneurismal pouch,” an objection of which we must say we do not see the force. Injections had not then been tried, and the proximity to the heart would, in all probability, have prohibited them. Cauterization was determined on. An eschar was produced in the centre of the tumor by chloride of zinc. Every two or three days M. Bonnet removed, with a bistoury, the superficial layers of the slough, and the applications of the paste were continued for five weeks, penetrating and extending its effects daily. On the 14th day the pulsations and the bruit de souffle ceased; at the end of the second month the eschar began to detach itself without any hæmorrhage. The clot came away with the eschar.

M. Bonnet says he was induced to employ this escharotic in the manner above described, from having noticed its property of causing coagulation of the blood, and having tried it fairly, and with great success, in the treatment of varicose veins. He suggests its application also to cases of aneurism by anastomosis.

The above case of cure of a very formidable aneurism, by chloride of zinc externally applied, seems to be stated plainly, and

without prejudice, and no untoward circumstances are mentioned, and we must therefore suppose none attended it. The progress towards recovery seems to have been steady, and without drawback. The success was perfect.

All this entitles the project to an attention at least, and although we do not think it necessary to expatiate upon its advantages or defects, nor make comparisons between it and other methods of cure, we claim for it a place among those remedies which we are entitled to use by their freedom from danger, and their efficiency, in the treatment of aneurism; at least, until further trials develop some defect in it.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 11th. *Quackery; a portion of the Kidney of some Animal presented to a Patient as a Tumor removed from her Uterus.*—The specimen, shown by Dr. ELLIS, was sent by Dr. J. E. BLAKE, of Middletown, Conn. He received it from a woman, who complained of various uterine troubles. The husband had much to say about a wonderful operation, which, he alleged, had been performed upon his wife by a "clairvoyant doctor" at Hartford. He stated that the last-mentioned individual had, in his presence, removed from his wife a tumor, using for this purpose nothing but "probes and hooks." He admitted, however, that his wife was no better. There was a viscid, sanious discharge from the os uteri, and the cervix was somewhat congested. Above, and a little to the right of the pubes, was a distinct induration. Notwithstanding the persistence of this enlargement, the woman was very confident that the *soi-disant* doctor removed the tumor, which she exhibited. This, to the naked eye, was perhaps three inches in diameter, of a red color, smooth and rounded over a portion of the surface, and elsewhere broken, evidently a part of some larger body, and probably a kidney. On microscopic examination, the probability became a certainty, as well-marked tubuli were everywhere seen.

Nov. 11th. *Cancer of the Foot in a Child; termination of the case reported Nov. 21st, 1860.*—Dr. MORLAND stated that the boy whose leg he removed for cancerous disease of the foot, November 21st, 1860, died of rapid phthisis on the 25th of October, 1861. Since the operation, the patient had been removed to South Boston; and, when ill, was carefully attended by Dr. Robert Provan. Dr. P. states that, "about three months previous to his death, he was observed to have a slight cough, and he complained somewhat of his chest being sore; but he continued at school and at play, as usual. The cough, however, became more severe, and the sputa more abundant." Shortly after the period to which this report refers, Dr. Morland saw him by request, and found him far advanced in phthisis. The progress of the disease had been very rapid. Until within a few weeks of his death he had been ruddy, active and in good flesh. He was confined to the house only three weeks. Nearly one year of life had thus seemingly

been added to his existence by the operation. With the pre-existing disease he could not have long survived.

The most urgent solicitation failed to obtain a *post-mortem* examination; which was especially desired in order to ascertain if there were any cancerous disease of the lungs. The stump of the amputated limb remained perfectly healthy.

Nov. 25th. *Stricture of the Œsophagus*.—Dr. ELLIS showed the specimen. The patient had been under the care of Dr. J. BIGELOW. She was about 65 years old. She had suffered for more than a year with dysphagia, of which the most remarkable feature was its intermittent and paroxysmal character, sometimes allowing deglutition to be performed with ease for weeks, and at other times rendering it nearly or quite impossible. She was of a nervous temperament, and suffered much from sleeplessness. During the last weeks she vomited often considerable quantities of thick fluid, like mucus, seemingly from the *œsophagus*. She died apparently from inanition, having swallowed nothing for many days.

A little below the middle of the *œsophagus* was a firm white growth, which entirely surrounded the part, and nearly closed the passage. It was perhaps two inches in length, and from a quarter to a third of an inch in thickness. The coats had disappeared over the thickest portion, perhaps half an inch in length, the disease having apparently extended from below upward, as the mucous membrane was still entire over the greater part, and the muscular layer was thickened and striated where the disease lay beneath. The latter had cropped out, as it were, in the centre, through the coats of the part. Beneath the mucous membrane above the principal disease, were several small, firm, white formations, of a similar character, and a small ulcer with a white base. No sign of inflammation around the disease, which was, however, closely adherent to the trachea, at its bifurcation. A superficial portion of it was probably involved.

Just above the pancreas was a firm, whitish nodule, similar to the growth around the *œsophagus*, perhaps an inch or more in diameter, but so surrounded by fat that it appeared much larger.

On microscopic examination, the general appearance of the growth about the *œsophagus* was fibrous, but a few indistinct nuclei were seen even in these portions, and became very distinct on the addition of acetic acid. A small, and apparently more recent portion, beneath the mucous membrane, contained well-marked nuclei, not very large, but with comparatively large nucleoli, which resembled very closely those of the most undoubtedly malignant growths. The mass above the pancreas was mostly fibrous, but some small nuclei were seen, like those found in glandular structures.

The stomach was very much contracted, but, in other respects, normal. Liver normal. The gall-bladder contained a thick, viscid, yellow liquid, and four calculi, three of them upwards of half an inch in diameter. One was impacted at the commencement of the duct. The lining membrane of the bladder was thick, white, rugous, and had entirely lost its villous character. In the wall of the uterus, projecting above the internal surface, was a round body, as large as a pea, apparently a fibrous tumor converted into a cretaceous substance.

Other organs normal.

Nov. 24th. *Abscess of the Prostate*.—Dr. ELLIS showed the specimen, which came from a patient of Dr. CABOT, who said the case had

been interesting to him from its general character, and from the fact that he had been inclined to regard it as one of malignant disease, seated between the bladder and rectum, though no tumor was ever discovered. The patient was a man about 50 years old. Two years ago an ulcer formed on the leg, which was accompanied by an unusual amount of pain, and was treated as an irritable ulcer. It healed rapidly, but the pain increased, and followed the course of the sciatic nerve. Difficult micturition soon followed. The use of the catheter caused some, but not an undue amount of pain. Then a dysenteric condition of the rectal discharges came on—bloody mucus, alternating with constipation. For the pain Dr. Cabot employed subcutaneous injections of a solution of bimeconate of morphia, an English preparation, the strength of which he did not exactly know. A fourth of a drachm at first gave entire relief for twenty-four hours, then for forty-eight, for seventy-two, and for ninety-six hours. After this, the period of relief shortening, the amount injected was increased up to a drachm and a half and two drachms, with only eight hours' relief. The pain then radiated along the course of the costal and dorsal nerves, and soon after, the trouble in the rectum and bladder increased, with copious purulent and bloody discharges from both rectum and bladder. The bladder was inflamed and sacculated. The disease lasted for about twenty months.

In the lower part of the prostate, or in the cellular tissue just external to it, was an abscess, perhaps an inch in diameter, filled with pus. The substance of the prostate above this had a spongy, reticulated appearance, and was also filled with pus. The bladder was contracted. The ureters and pelves of the kidneys were dilated. Some yellow, caseous-looking material was seen in limited portions of the kidneys, resembling what is seen after an inflammatory process.

Other organs normal.

Nov. 25th. *Compression of the Cerebellum and Medulla Oblongata by a Fibro-Plastic Tumor.*—The specimen was shown by Dr. ELLIS, who gave the following history of the case, from notes furnished by the attending physician, Dr. J. F. Gould, of South Boston.

The patient was an American, 45 years of age, married; a carpenter by trade. About 20 years ago he was run over by a fire-engine, and wounded in the frontal region. Since that time he had been subject to headache, but was, in other respects, well, until February, 1859, when the pain became very severe in the left occipital region, and extended upward from this point. Since that time has been subject to spasmodic action of the limbs and mouth, the left angle of the latter being acted on. In March, 1861, he had what was considered an attack of apoplexy; on the 8th of April a second, another on the 13th of August, and a fourth, which terminated his life, on the 12th of September. In these there was rigidity, sometimes frothing at the mouth, and complete unconsciousness. When consciousness returned he would remain stupid for some time, and experience some difficulty in articulating. In March, 1860, the left side, including the face, became paralyzed, and continued so. This was followed by a diminution in the size of the limbs. The right side afterwards became somewhat affected in a similar manner. He was able, after some effort, to carry a cup of tea or a piece of bread to his mouth, but could not use a knife or fork. The appetite was "voracious," meat of all kinds being taken in large quantities, without the fat. He did

not, however, eat potatoes, or even wish to see them in the house, until the day before his death, when he ate nearly two quarts for dinner. The food would, at times, collect in the fauces, and work out of the mouth during mastication. An hour after eating he complained of fulness in the epigastrium, and drowsiness, and yet five minutes after a meal he would desire more food. He seldom used water, but would drink from four to five cups of tea, three times a day. He at times had two large dejections daily, of natural consistence, dark-brown, and of a sickish, oppressive odor. At other times he would pass a week without a dejection. Within the last four months, he had, perhaps, thirty involuntary discharges. The quantity of urine varied from less than half a pint to more than two pints, in twenty-four hours. It was of a dark-brown color, of the same odor as the fæces and passed three or four times, daily, without straining or pain, while he rested on his knees; the linen was stained by it. Since March, 1861, there were usually two involuntary discharges each week. The sexual appetite was strong, and very frequently indulged. The pulse was slow, but full and strong. The skin was everywhere rough, and the extremities so cold that flannel was constantly worn during the last year. The sight began to fail in March, 1861, and by August he was totally blind. The dilated pupil was a quarter of an inch in diameter. Some deafness since an attack of scarlatina, in 1844, but more marked since March, 1861, and at times total. All things tasted alike. The sense of smell failed during the last three months of life, but, on the day of his death, at noon, it appeared to return, as he expressed himself very strongly in favor of a mutton stew, which was so agreeable to the taste, that he ate nearly two quarts, and thought that he should like three or four. He gave up work in July, 1859, and died on September 12th, 1861.

Autopsy, by Dr. ELLIS.—The arachnoid was dry, and the cerebra convolutions flattened. Between two and three ounces of serum in the lateral ventricles. The septum lucidum was softened.

Beneath the left lobe of the cerebellum and the medulla oblongata was a firm, glistening, whitish tumor, about an inch and a half in diameter. Its structure, to the naked eye, was lobular, but on microscopic examination, it was found to be composed of the small, more or less elongated nuclei and cells which have been described as characteristic of fibro-plastic growths. This was attached to, and apparently originated in the arachnoid or pia mater, delicate filaments of which were divided in its removal. It had flattened and decidedly depressed both the left lobe of the cerebellum and the medulla oblongata, but its exact limits were unfortunately not noticed. The nervous tissue did not appear to have undergone any organic change.

The body generally contained a large amount of blood, and the adipose tissue was abundant.

The thoracic and abdominal organs were healthy.

BOTANICAL SOCIETY OF CANADA.—This Society, we are pleased to observe, still continues its operations with great and unabated vigor. As a proof of the interest taken in it at a distance, we were much gratified by receiving from the indefatigable Secretary, Dr. Lawson, a short time ago, a list of one hundred and thirteen plants, representative of no less than thirty-seven natural families, a donation to the garden from Prof. Asa Gray, of Harvard College, Cambridge, Mass.
—*British American Journal*.

Army Medical Intelligence.

[From our Special Correspondent.]

WASHINGTON, D. C., DEC. 12, 1861.

MESSRS. EDITORS,—I propose in the present letter to give an account of a case of gun-shot wound of the lower jaw, involving great danger, first, from the wound, and, secondly, from pyæmia; but which, from skilful management and the kindness of an overruling Providence, has now passed far beyond danger.

Private A. C., 4th Pennsylvania Cavalry, Co. B, of intemperate habits, and of strong, muscular form. Admitted Oct. 18th, four hours after injury. Wound was still bleeding very rapidly. Extremities were cold, and he was almost pulseless. His brain was dormant, and death seemed inevitable. The wound was received as follows:—He was on horseback, when one with whom he was quarrelling, standing six feet distant from him, discharged the contents of a pistol towards him. The ball passed into the left cheek, an inch from the angle of the mouth, and half an inch above, making a wound half an inch in diameter. Examination with the probe, and also with the finger, revealed extensive comminution of the inferior maxillary bones. The wound was slightly enlarged in order to tie some bleeding vessel, but without success. Stimulants and morphia were given, an abundance of lint placed in the wound, and bleeding was checked.

Oct. 19th.—Pulse 96, and weak. Placed under the influence of ether, and wound was freely examined. The inferior maxillary bone was severely comminuted. An incision was made from, and a little anterior to, the lobe of the ear down to the angle of the jaw, and then along the base of the jaw, extending, in all, four inches. This was done with a view, first, to tie the carotid if necessary, and, secondly, to remove any loose pieces of bone. The facial artery was tied and divided, and seven small pieces of bone were removed. The two last molar teeth were absent. As far as the finger could reach, the carotid was uninjured. The body of the jaw was fractured; the periosteum was, however, attached, and the bone was in apposition. The edges were then brought together with ten sutures and strips of isinglass plaster. The wound made by the ball was trimmed and brought together as carefully as possible. Brandy, beef-tea and morphia were given daily.

20th.—Wound dressed and looking well. Considerable swelling of the whole side of the face.

21st.—Whole side of the face presents the appearance of a contused wound, suppurating through the mouth, with a very offensive smell. Labarague's solution, diluted, ordered as a wash.

23d.—Erysipelas about cheek and eye. Iron given daily. Sutures removed, and also ligatures. Edges of incision had all united, and an opening through was made in the centre.

24th.—Wrist examined, and synovitis was apparent. Limb placed in splints, and an application of iodine made. Large abscess opened on internal malleolus. Face pasty; countenance languid; delirious; profuse vomiting. Evidently has pyæmia.

26th.—Large abscesses opened on wrist, from which a great quantity of pus escaped.

Nov. 9th.—Countenance a little improved. Another abscess open-

ed on thigh, from which a pint of pus was taken. Small one also on eyelid.

11th.—Patient still delirious, and several small abscesses have appeared on different parts of the body.

30th.—Face entirely well. Both wounds healed entirely. Patient feels much better.

Dec. 2d.—An exceedingly large abscess opened on right thigh, from which nearly a quart of pus flowed. Synovitis much better.

8th.—Patient goes about. To-day, walked two miles. No more abscesses. Wrist about the same.

11th.—Patient ready to be discharged as well, except the synovitis of wrist.

Several cases of pyæmia have come under my observation during my stay here, but I know of none so severe as the one I have cited.
H.

HOSPITAL SUPPLIES IN THE ARMY—SANITARY CONDITION OF THE 3D MICHIGAN INFANTRY.

To the Editors of the Boston Medical and Surgical Journal.

I HAVE a correction to make in my letter of 24th ult., as it appears in the JOURNAL of the 5th current. The fault is mine, and I regret my haste in mailing my letter, as that was the cause of my overlooking the matter.

After stating that it generally takes some two weeks to obtain hospital supplies, the following sentence occurs:—"The obvious detriment to the efficiency of medical officers, and even to the health of the men, resulting from the total want of indispensable medicines and hospital supplies, such as quinine and hospital blankets, and the want continuing for such a length of time, requires that some improvement should be made." From this one might understand that we were totally without hospital blankets for two weeks. I meant only that we were without the *fresh* supplies asked for. As to the medicines, there is no correction necessary.

I am happy to state that things are now working better. Our Brigade (Richardson's) is in tolerably good condition. The new tents have been issued, and the men have thereby been encouraged to make improvements in the internal arrangement and cleanliness of their quarters.

The diseases continue of about the same type, but not of so low and sluggish a grade. In hospital and quarters, in the whole Brigade, there are somewhere about 180 on the sick list. Many of these are slight. Our Brigade is composed of the 2d, 3d and 5th Michigan and the New York 37th, an Irish regiment. The sick list of the latter is slight—not generally more than two thirds or even one half of that of the Michigan men. We move, in a day or two, to a place three miles south, where we shall probably go into winter quarters. In our new location there are some buildings which it is intended to convert into a brigade hospital—each regiment having wards of its own. This will be a great improvement, as the medical officers will thereby be thrown more together, and can compare notes and cases. In this way we shall, I hope, have something like a little medical association, where we can contribute to the improvement of each other. This is a point that seems to be too much neglected. The officers of each regiment keep

by themselves, and the medical officers appear to follow the same course pretty generally; whereas the latter ought to endeavor to make the acquaintance of their brother physicians of other regiments. There never were better opportunities for medical consultation, conversation, discussion, and, consequently, improvement, than we have here, where so many are near together, and can associate with each other perfectly untrammelled by the little bickerings and local jealousies which are the bane of local medical societies in civil practice.

As to surgery, there is nothing of it here. A few unimportant gunshot wounds are all that I have seen yet. We shall probably have nothing to report this winter but the ordinary routine of catarrhs, rheumatism, rheumatalgia, and some pneumonia. Oh yes, one thing I observed during the late cold weather was, that we had quite a number of cases of otalgia, several of them running on into otitis. At the same time, several cases of tonsillitis occurred, some of which are yet on the way.

I fear what I have written is not worth the space required, but you must expect to be "bored" sometimes. The greatest difficulty we have here is to know, at "sick call," whom to excuse and whom to send back to duty. On days of brigade drill or brigade review, the number who come for excuses is nearly doubled; and where they complain of rheumatalgia in one part or another, it is extremely difficult to decide correctly, particularly where you have to examine and prescribe for from 30 to 50 men in an hour or an hour and a half.

GEO. B. WILLSON,
Late of Port Huron, Mich.

Camp of 3d Mich. Inf., Richardson's Brig., }
Fort Lyon, Va., Dec. 9th, 1861.

WE are indebted to the kindness of the Surgeon-General for the following letter from Dr. Derby, Surgeon of the 23d Regiment Massachusetts Volunteers:—

To the Surgeon-General. { CAMP ANDREW, NEAR ANNAPOLIS,
Dec. 5th, 1861.

DEAR SIR,—I promised to report the sanitary condition of the Mass. 23d. It is and has been to the present moment exceedingly good. We have all suffered from a degree of cold unusual on the Chesapeake at this season, but the only effect has been to produce catarrhal affections, not often unfitting the men for duty. Our average number in hospital has been but eight. Surgeon's call, at 6½, brings us every day some forty cold and sleepy men, about half of whom are allowed to remain in quarters, excused from duty, and who retire from our tent with tin dippers well filled with flax-seed tea. This is our great expectorant, and has done us good service. A few simple cathartics in addition make up most of the medication required, and the well stored chests with which the State provided us are nearly intact—and long may they remain so.

Small injuries are frequent in camp. We have some to provide for every day.

Our freedom from serious disease I can only ascribe to the general good character and consequent sobriety and cleanliness of the men, and to our sheltered and well-drained camp. We are in a pine wood, not so dense but that the sunlight penetrates it, but quite screened from the piercing winds. The ground is well scored with drains, conduct-

ing away all surface water. We have had not a single case of continued fever or varioloid, and until to-day I might also have said, measles. One case of the latter appeared to-day, and I fear the disease may spread.

The Brigade Surgeon acting for the whole Burnside Division is Dr. Church. He has been absent for more than a week, and two days since I was greatly astonished at the receipt of an order from Headquarters appointing me Medical Director for the Division *pro tem.*, with instructions to immediately organize a general hospital at St. John's College, in Annapolis, and to appoint its medical officers. Instant obedience being the soldier's first duty, I mounted my horse, took possession of a large house in the College grounds, despatched orderlies to Surgeon Otis of the Mass. 27th, Assistant Surgeons Noble (Penn. 51st) and Lathrop (Conn. 8th), and in twenty-four hours (thanks to the untiring energy of Dr. Otis, who entered upon the work with the greatest promptitude and judgment) we had a comfortable hospital, with blazing wood fires in six rooms, and some twenty poor fellows taken from their cold camps and basking in the warmth. More are coming in daily, and I doubt not in a week we shall have a hundred patients.

My other duties require me to report at Headquarters every day at ten, where many discharges and requisitions await my signature.

Our regiment is well manned and officered, harmonious and patriotic. Of my Assistant Surgeon, Dr. Stone, I can only say that he is invaluable.

Always truly yours,

GEO. DERBY,
Surgeon 23d Mass. Vols.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 19, 1861.

INFORMATION GIVEN TO LIFE INSURANCE COMPANIES.—The following communication is of a nature to interest the profession generally. It is really surprising that business men should expect that physicians will be ready to furnish, at any moment, the information sought for, on which so much depends, *without any remuneration*, and on the requisition it may be of persons who are perfect strangers to them. There is about as much justice in it as there would be in expecting a conveyancer to supply gratuitously to a real estate agent all the information in his possession touching the title of an estate which he has for sale. The cases are strictly parallel, and there is as much reason for one as the other. The practice has grown up, probably, from the proverbial good nature of the profession, who are only too ready to forget that their opinions are worth money, and often more than money, to those who ask them. We hope that as a body our brethren will adopt the course which our correspondent has followed, and decline to furnish the information desired, at any rate without adequate compensation. We fully endorse his views, and think it would not be amiss for the Boston Medical Association to add to its fee-table a charge for this special service. The fee ought to be even larger than that paid

to the medical examiner, for the reason that the information sought for is such as the physician applied to can alone supply, whereas any reliable practitioner is capable of making a satisfactory examination of an applicant for a policy; it should be at least as large as the fee for a consultation, and should be paid by the insurance company.

"QUESTIONS TO BE ANSWERED BY THE FAMILY PHYSICIAN."

To the Editors of the Boston Medical and Surgical Journal.

Such, Messrs. Editors, is the imposing heading of a series of questions, involving possible and impossible answers, presented by agents of life insurance companies to the medical attendant of almost every one whom they wish to add to their list of patrons. The agents complacently tell the physician that "it will take but a moment," that "he certainly can have no objection to stating what he knows about his patient, especially as the latter wishes it," that "it is not necessary to be very particular," and much more to the same effect. Yet the physician is asked to describe the person of the applicant; to give not only his morbid tendencies, but those of his parents, brothers and sisters; to recount the diseases he may have had *at any time*; to state the ordinary or average rate and other qualities of the pulse, the stethoscopic characters of the respiration, and the heart's action; to set forth hereditary predispositions, present health, habits, constitution; and, finally, to record an opinion, which may injure while it cannot increase professional reputation, as to the party's prospect for longevity, and the company's risk in insuring him. These and similar interrogatories, which cannot be answered with any approach to fidelity, without much care and time, are placed before the medical attendant, and he is expected to reply at once, without the least hesitation or scruple; and much surprise is manifested if he stops a moment to inquire into his own responsibilities in the case, or the claims of those making the demand.

The writer has been in the habit of declining to answer such questions altogether. In this he has had the countenance of some medical examiners; and he now hopes for the support of this JOURNAL and the profession in a practice which he thinks ought to become general. The following are some of the reasons which have influenced him in the course he has pursued.

The family physician, by answering such questions, virtually makes himself an agent of the Insurance Company, and if they are induced, by any inadvertence, error, or design of his, to assume an improper risk, however great may be the ultimate damage to the physician, the Company cannot escape thereby the payment of the amount insured. This is the legal aspect of the case. It is not altered by the applicant's wish to have the questions answered, since he only follows the directions of the Company.

As business men, the Company ought not to expect that a physician, having no interest in their enterprise, will, for their exclusive benefit, voluntarily seek out and disclose to them, or put on record—the ultimate disposition of which he may not know, and over which he can have no control—the constitutional weakness and physical defects of a patient and friend, in whom he may have great interest, and whose prospects he may not wish to disparage, much less to fatally injure. Yet the physician is, in fact, asked to do even thus much, to save a Corporation from the risk of a pecuniary loss.

For their own protection, the Company has, or should have, competent examining and consulting physicians, on whose investigations and judgment they should be willing to rely.

The relation between physician and patient is such, that a public parade of the former's knowledge and opinions, relative to the physical infirmities of the latter, may be accompanied, in almost every instance, with, to say the least, many serious objections. To medical men, these objections need be only alluded to. To such they are sufficiently obvious and obligatory. If they are not so to insurers, it may be from want of experience in that direction; but while they can obtain all needed information through their own examiners, without incurring these objections, they ought to be satisfied therewith.

In a word, Life Insurance Companies have *no right whatever* to make such demands of medical attendants, and it is quite time that the practice be discontinued.

A statement in the JOURNAL, Messrs. Editors, of your opinions, or that of any of your correspondents conversant with these matters, may be of service to more than one in the profession. IATROS.

WE have received from the publishers, Messrs. Bradley & Webb, Cincinnati, the Physician's Pocket Memorandum for 1862, by C. H. Cleaveland, M.D. It contains, besides the requisite pages for memoranda of daily practice, &c., a Classified List of Remedial Agents with their doses, with others not classified, a glossary of abbreviations used in prescriptions, directions for treatment in sudden emergencies—such as accidents, cases of poisoning and the like—rules for making autopsies, for the process of embalming dead bodies, and for prescribing medicines. We observe some carelessness in correcting proof, or something worse, by which such words as hæmatica, neurotica, myonotica, &c., are elsewhere printed hæmaticæ, neuroticæ, myonoticæ, &c. In the list of remedies and the subsequent table of abbreviations we find numerous instances of the want of the supervision of a classic eye. *Mortarum vitreo*, a glass mortar; *nominus*, a name; *omni mane*, every morning; *pediluvium ferventes*, a hot foot-bath; *præcœpue*, especially; *repentendus*, to be repeated; *saccharum alba*, white sugar; *succus pomum*, cider; *tempefactus*, made warm; *tussis moles-tante*, when the cough is troublesome; *utatus*, let him make use of; with numerous other instances equally aggravating, are too flagrant to be allowed to pass unchallenged. We like the general plan of the Memorandum, and hope next year to see it free from such gross blemishes.

CONSULTATION WITH HOMŒOPATHISTS. *Messrs. Editors*,—The communication of "Justitia" in the JOURNAL of the 28th ult., although perhaps intended to be severe upon me, is on many accounts quite gratifying. My first article was written with the hope of eliciting some such comments, or possibly an argument to prove that in certain cases (say surgical or obstetrical) it was right to shed all possible light on a benighted brother, but with much lurking fear that the truth of the charge was so notorious that no one would notice so stale an accusation. With many of my brother Radicals I had derived the impression that the faculty in Boston had settled down into the conclusion that homœopathy, though an error, was a necessary evil, and that it was useless to attempt to draw exact lines between men of large practice built upon such an error and those whose practice has grown up more legitimately, and that, if the man they were requested to consult with did not advance his special views directly and offensively, no one could expect them

to know him to be a homœopathist, or to treat him as other than a brother practitioner.

Having this impression, the bold denunciation of the custom by "Justitia," and his apparent ignorance that it exists in our State and Society, is gratifying, as it gives pleasing evidence that we are not wholly demoralized, and renders it probable that even if "the most able physicians, accoucheurs and surgeons of Boston" do, as I still assert, hold such meetings, it is not the universal practice, and that although my homœopathic neighbor *seems* to have no difficulty in obtaining advice and assistance in cases either medical, surgical or obstetrical, from your city, yet that he *does* occasionally meet with a rebuff.

As regards the paragraph on "duty," I can only say that that is generally more a matter to be settled by one's own conscience than one to be oracularly announced to him, and that, having no taste for complaints and arraignments, it does not appear to *me* to be my duty to enter upon any crusade in behalf of legitimacy by preferring charges against men older, wiser, and more highly esteemed in the profession than myself. Give me leave to call attention to the matter, protest loudly against the practice or combat vigorously the error, but pray excuse me from wasting my time and zeal in endeavoring to *punish* men whose standing in the profession is such that what might be proved against them would be looked upon only as an oversight or an error in judgment on their part.

It is not worth while to direct the virtuous indignation of "Justitia" and the *omne genus* of Radicals against any one man for such infractions of our laws when the offenders are so numerous, but it may do some good to call attention to the fact that such meetings and consultations are held, cannot be kept secret (the very homœopathists boasting of them), and are at variance with the Regulations of the Society of which the offenders are leading members. Not trials and penalties, O "Justitia," but a gradual elevation of professional "*esprit du corps*" must effect a change in these respects.

RADICAL.

P. S.—Should "Justitia" find it to be *his* duty to pursue the offenders, he can at any time be furnished with the necessary data by calling upon

Yours truly,

R.

INDIA-RUBBER STOPPERS FOR BOTTLES. *Messrs. Editors*,—Has not your correspondent M. made a mistake in saying that these stoppers "for all liquids are more than a convenience—a positive luxury"?

Pure ether, nitric ether, naphtha, most of the volatile oils if not all, the fluid known as kerosolene, and turpentine, will be found to destroy the cork or be spoiled by it after a short time.

B.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 14th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	26	36	62
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	36.0	36 5	72.5
Average corrected to increased population, . . . . .	..	..	80.88
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria
15	1	1	1	9	0	0	2	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Dec. 7th.

Mean height of Barometer,	30.072	Highest point of Thermometer,	44.0
Highest point of Barometer,	30.616	Lowest point of Thermometer,	14.0
Lowest point of Barometer,	29.563	General direction of Wind,	North.
Mean Temperature,	29.6	Am't of Rain (inches), see next week.	

DEATHS IN BOSTON for the week ending Saturday noon, December 14th, 62. Males, 26—Females, 36.—Apoplexy, 1—inflammation of the brain, 1—bronchitis, 1—cancer, 3—cholera infantum, 1—consumption, 15—convulsions, 2—croup, 1—dropsy, 1—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 1—typhoid fever, 2—disease of the heart, 1—infantile disease, 1—laryngitis, 1—congestion of the lungs, 1—inflammation of the lungs, 9—marasmus, 3—miscarriage, 1—old age, 1—orthopnea, 1—suffocation, 2—suicide, 1—teething, 1—ulcer (of stomach), 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 25—between 5 and 20 years, 3—between 20 and 40 years, 16—between 40 and 60 years, 10—above 60 years, 8. Born in the United States, 46—Ireland, 13—other places, 3.

THE

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ON THE DIVERSITY OF INFECTIVE MATTER, AND THE DIVISION OF SYPHILITIC FORMS OF DISEASE FOUNDED THEREON.

BY PROF. DR. C. SIGMUND, OF VIENNA.

[Translated from the *Medizinische Jahrbücher*, Heft iv., 1861, for the Boston Medical and Surgical Journal,
by J. C. WHITE, M.D., Boston.]

CLINICAL observations, as well as systematic experiments on inoculation, have led to the conclusion now adopted by specialists, that gonorrhœa with its train of symptoms forms a group of morbid phenomena, which in their origin, course and end are really different from those produced by venereal and syphilitic ulcers, or what are commonly called "chancres." On this account the term "*syphilis*" is inapplicable to the former group in strictly scientific language. (See *Zeitschr. der k. k. Gesellsch. der Aerzte*, 1853, Maiheft, s. 440, und 1854, Juliheft, s. 38.)

Although a few physicians indeed attributed the existence of the so-called syphilitic forms of disease to a variety in the infectious matter, still until within the last fifteen years the great majority of physicians and specialists were satisfied with the belief in its oneness, and explained accordingly the origin and development of the various venereal and syphilitic forms in multifarious ways, as the views on general pathology then prevalent, or individual opinion, led them. Inasmuch as the first appearances, which follow the transmission of infectious matter, are often either entirely or more or less similar, and inasmuch as the experienced observer can give no *safe opinion in the beginning* in regard to the later events which are to follow, but little weight was attached till that time to the question whether the origin of the syphilitic forms was to be sought in a single or dual matter of infection, especially as it could not be isolated either by chemical or physical means. All the more attention was therefore bestowed upon the carriers of the infective matter, the conditions of the transfer, and the morbid symptoms which *constantly* accompanied it, and in this way there was established a real stand-point for the separation of the dis-

eases in the infiltration of most, if not all of the lymph-glands. (See *Mediz. Wochenschr.*, 1853, No. 31.)

As carriers of the syphilitic virus we recognize the pus, the blood, and the *exudative fluids* of persons affected with syphilis; all the other fluids of the same carry with them the infective matter only so far as they are mingled with the above. The transfer takes place only upon wounded surfaces; never upon sound skin. The first sign of the actual admission of the virus shows itself in such places as well-defined exudation or infiltration (pustule, ulcer, papule) either *very quickly* (in 1, 2, or at least 4 days), or *much later* (after 2, 3, 6 weeks), and such primitive forms are distinguished by the customary term "*primary*." Those forms, however, which develop themselves in distant organs and parts of the system, are called in the most general sense "*secondary*," although this term in its precise meaning is applied only to the symptoms of the *general* affection of the whole organism—in other words, infection of the blood. (First, infiltration of the lymph-glands most intimately connected with the point of reception, then gradually of those farther and farthest removed, and at the same time and subsequently an appearance of spots, papules, pustules, nodules and ulcers.) Observations extending over many years, upon individuals who were well known to the observer before their infection, prove that *this general* affection does not follow every transfer; but that, on the other hand, many persons undergo repeated transfers, in which the infection is communicated through various and distant portions of the skin and mucous membrane (such as the anus, navel, axilla, mouth, nipple, between the teeth, and even upon the tongue, gums, and tonsils), without any other result than a purely local trouble, such as ulcers, or at most inflammation of the *nearest* glands (with or without suppuration), and without the slightest appearance of any affection of the general system; whereas, on the contrary, a single transfer is sufficient in the case of other persons, after a local affection (ulcer, pustule, papule), to produce the "*secondary*" or "*general*" symptoms above mentioned. The *interval* within which the first sure signs of the same show themselves, is from the *sixth* to the *eighth* week, and in exceptional cases (anæmia, fever, and pregnancy) extends to the *twelfth*. Considering the uniformity or similarity of the *primary* forms, there remains for the determination of the beginning of the "*secondary*," only *the survey of the general system, and especially the condition of the lymph-glands during this interval* (see *Mediz. Wochenschr.*, 1853, No. 31, and 1860, No. 14), and I have therefore insisted upon the fact that the only real proof and sign of the general syphilitic affection of the system is the accompanying universal disease of the lymph-glands. *Where this symptom is wanting, there no syphilis exists*, and only careless investigation or voluntary assumption can fail to recognize a sign which is demonstrable in every syphilitic patient.

The gradual affection of the greatest part of, if not the entire lymphatic glandular system, forms the constant and by far the most reliable sign of general syphilis, and is the true distinguishing mark between it and other diseases, which begin in the same or in a similar manner, progress, but do not end in the same way, and which in their effect upon the general system are entirely different. This disease of the glands explains also the anæmic and hydræmic condition, which, more or less marked according to individual circumstances, always accompanies the approach of constitutional syphilis; and the secretions from the diseased glandular system and blood give rise to the hyperæmic and exudative processes of the skin and mucous membrane (spots, papules, pustules, ulcers and so on). The disturbances in the nutritive, locomotive and nervous systems (fever, emaciation, pallor and discoloration, weakness and sluggishness of the muscles, pain, restlessness, &c.) account for the other appearances in syphilitic patients in a very simple manner according to the generally-received pathological views, and shed additional light also upon the severer symptoms and more exaggerated forms in such persons as are already suffering from diseases of the more important organs, in addition to their syphilis, as the glands, lungs, liver, spleen, kidneys, &c., or are afflicted with such in the course of the same (a second source, therefore, of anæmia, impoverishment, and finally infection of the blood), conditions which may be called cachexia and dyscrasia, provisionally, until grounds for a more accurate nomenclature are discovered. This transition of dyscrasia into cachexia betokens a localization of the inflammatory processes in special systems and organs, most frequently in the cellular tissue, bones and cartilages, or in the head, nose, gums and throat; suppurative softening and permanent destruction of the affected tissue characterizing this event. The formation of tubercle and amyloid degeneration, together with dropsy and consumption, finally appear in syphilitic patients, as the result of the union of the disease with organizations, whose vegetative systems were affected either before or after the syphilitic attack.

In accordance with such a view of the forms of disease, which are designated by the customary collective name of syphilis, has arisen their division into four different groups:—gonorrhœa, the primary contagious ulcers, the contagious and infectious secondary forms, and pseudo-syphilis.

I. The gonorrhœal group embraces the contagious inflammations of the mucous membrane with their sequences and without the formation of ulcers. The catarrh has its seat in the mucous membrane, most frequently that of the sexual organs, is produced by the transfer of an infective matter concealed in the secreted mucus and pus, extends often from the spot first attacked over the whole mucous membrane of the affected organ and to the glands connected with it, and when long continued gives rise to narrowing of the canal, granulations of the skin, and (from the disturbed ex-

cretion of the urine in the kidneys) rheumatism and arthritis. In favorable organizations and under regulated, dietetic conditions, the cure of gonorrhœa may be effected without the aid of drugs. Obstinate persistence, frequent relapses, and often very severe sequelæ, are observed in scrofulous, tuberculous and anæmic persons. Gonorrhœa can *attack the same individual repeatedly, and just as often, in fact, as new opportunity for the transfer is permitted.*

II. *The primary contagious forms* consist of *ulcers* and *abscesses* seated in the external skin, mucous membrane and cellular tissue, most generally of the sexual organs and their neighborhood, the source of which is to be discovered in the transfer upon abraded surfaces of contagion-bearing pus from just such forms, and the sign of the successful transfer of which becomes visible *in a few days* (1 to 4) as a pustule or suppurative wound, with sharply outlined softening of the affected tissue. Where the point of abrasion is very slight, pustules resembling those of vaccination are developed, while suppurating patches result where the wound is extensive, and in this way ulcers may be transferred to various parts of the body, near or remote, of the same individual. The spread of the ulcers is various, depending upon their seat, the external influences, and the constitution of the patients, so that phagedenic and gangrenous destruction sometimes accompany them. There often arise, moreover, in the course of the ulcers, and in their immediate neighborhood, inflammations of the glands and cellular tissue, with the formation of abscesses, the pus of which is infective.

To such after-appearances is the whole course of the primary ulcer limited, and no other affections of more distant systems and organs result from it. The *contagion*, it is true, can be scattered over many points of the external skin, and an acute glandular inflammation thus be brought on, but a general disease of the glands, and consequently, *infection*, never results, and the non-appearance of the same within a certain period is a fact founded upon *observation continued from case to case.* These forms also *may attack the same individual anew and repeatedly at various times*, as often, in fact, as fresh opportunity for the transfer of the contagion is afforded. The primary forms run their course as a purely local disease of the affected skin and the lymph-glands most nearly connected with it, and are cured under favorable dietetic auspices without the aid of medical treatment, the tissues affected by the pus being thrown off and cicatrization following. This process is simplified, lightened and hastened by artificial assistance (see *Mediz. Wochenschr.*, 1860, No. 14). In cases of anæmia, scrofulosis, tuberculosis, and the marasmus of intermittent fever, we do, indeed, find chronic inflammation of the nearest glands, but not of those remote. Primary ulcers have a circular form, sharply-cut edge, and in the beginning both border and base thick, tough and infiltrated with pus.

The edge and base are soft, occasionally however somewhat thicker and firmer than the surrounding unaffected skin, and the consistence of its cicatrix is the same. In individual cases the base of the ulcer becomes harder, and likewise the cicatrix, in consequence of the longer duration of the suppuration, especially in anæmic and scrofulous persons, or when there has been much chemical and mechanical irritation of the sore. The distant glands, however, are not affected in such cases, and at most a single one or a pair of those in the closest neighborhood take on acute inflammation. Hardness of the edge and base from the beginning, or gradually developed and constantly increasing induration of the same, *with extension of the hardness out over the edge of the ulcer*, point to the development of the secondary form, and *the diagnosis of the same attains certainty* by the simultaneous swelling and induration of the nearest groups of lymph-glands, which gradually affects those more and farthest distant. *Without this occurrence, the induration alone of an ulcer, a cicatrix, or of a neighboring gland, has no diagnostic importance, and the separation between primary and secondary disease rests only upon this, the real ground of distinction.* In the majority of cases, the affection of the lymphatic glands shows itself during the sixth week, reckoning from the time of transfer; an earlier appearance being a very great rarity, and a later one being observed only in the so-called anæmic processes (typhus, smallpox, scurvy, the intermittent dyscrasia, tuberculosis, after exhaustive confinement, &c.). Even in such cases the secondary disease follows at farthest within twelve weeks after the successful transfer.

III. *The secondary forms—the true “syphilitic” forms*—have their seat at first in the outer skin or mucous membrane, most frequently (though not so often as the primary) in that of the sexual organs and their immediate neighborhood. They are produced by the transfer of infective matter upon *wounded* surfaces, either from persons *primarily* diseased, in which case there is the rapid formation of an ulcer visible within 1 to 4 days, or from those affected *secondarily*, the symptoms (infiltration of the skin, papule, pustule, ulcer) appearing later, at least not before the fourteenth day. Arising *locally* in this way, the affection spreads onward, partly upon and in the skin, partly through the lymph vessels into the glands and blood, to which diseased elements (cells? granules?) are borne. A succession of consecutive, sharply-characterized appearances upon and in the skin, as well as mucous membrane, viz., hyperæmic and exudative phenomena (spots, papules, pustules, nodules), furnishes sufficient evidence of the distribution and proportionate excretion of such elements. These symptoms follow, in the time, manner, duration and form of their appearance and course, a certain regularity, and are constantly attended by more or less perceptible disturbances in the nutrition of the general organism, which are observable in the digestive, secretory and ex-

cretory systems, the locomotive and nervous apparatus, in various ways, according to the individual case, but are always characterized by weakening and obstructing the nutrition and other functions. A later train of symptoms exhibit exudative processes penetrating more deeply into the organization of distinct tissues and organs, and characterized by liquefaction, shrivelling and deposition. These forms appear often sharply defined (nodules and nodes, pustules and ulcers, later scars, depositions of pigment, and of calcareous matter in the cartilages and nodes), quite as frequently, however, without any characteristic appearance as to form, periphery, color and duration. At times even they occur mingled with those of the earlier train of symptoms in the cellular tissue, the sheaths of the muscles, tendons and nerves, the synovial membranes and periosteum, the cartilages and bones themselves, and in single organs (eye, testis, liver, spleen, kidney, brain, spinal cord), and can only be safely diagnosticated by means of accurate investigation of their cause, observation of their course, and comparison with and exclusion of similar (though in fact really distinct) processes. Accompanying and following these symptoms there is developed an impoverishment of the blood in the same way as always results from the long-continued disease of organs indispensable to the preparation of the blood and nourishment of the system. A "cachexia," thus gradually developed by syphilis, has, then, no especial characteristic with the exception of its cause, and terminates, like all others, according to the individual circumstances of the patient, sooner or later in death from atrophy, phthisis or marasmus. The time required for the development of all these symptoms, which change much according to individual and external relations, is various, but *always of long duration*, and the syphilitic forms disappear, as daily observation teaches, in otherwise vigorous constitutions, and under favorable external influences, at various periods of time, *without each single patient going through all or the most of these phases*. In no small proportion of cases even the syphilis terminates at the first train of symptoms, and leaves visible here and there but faint indications at most of the earlier forms. Precisely the same is observed, although less frequently, in the second train of symptoms, more deeply affecting the tissues, in which after the discharge of the softened exudations and infiltrations has been accomplished with more or less observable loss of tissue, the appearances of syphilis cease, and the earlier normal nutrition of the system is restored. *In this sense, then, there is a spontaneous cure of syphilis.* In persons with more or less developed constitutional predisposition to disease, or with diseases already formed (tuberculosis, scrofula, affections of the spleen, liver, heart or kidneys, or anæmia from other manifold causes), the softening and shrivelling of the deposits are more frequent, protracted, obstinately persistent, and severe, and the exudative processes tend more to relapse. *Syphili-*

tic diseases, therefore, are always more severe, according as the organism is affected by the spores of other diseases which disturb the nutrition, or by those already developed, or according as it is attacked by such diseases from other causes, either in the course of syphilis or after it has existed for some time. This view, founded upon the observation of daily life, explains those exaggerated and protracted forms of disease, curable either by great loss of substance or else not at all so (ulcers of the external skin and mucous membrane, caries of cartilage and bone), which have been generally attributed to syphilis entirely without distinction of cause, without regard to combination and complication. The changes in the tissues and the composition of the exudations and infiltrations, commonly called syphilitic, are not yet sufficiently known. A more thorough separation of the processes resulting, either indirectly or constantly, from syphilis, as their real and necessary cause, must first be established, and then it will be possible to estimate properly the value of the anatomical and chemical relations of pathology to syphilis. To apply, however, at this period hypothetical views of pathology to hypothetical forms of a group of diseases not yet definitely determined, and to deduce the laws of their origin from dyscrasiæ ("krasen"), and accordingly to apply hypothetical names, is merely to increase the already existing confusion. First of all, syphilitic patients should be rigorously and objectively examined, the traces and appearances of syphilis be unmistakably determined, then the evident signs of other diseases are to be considered in connection with the syphilitic symptoms, and the mutual relation to, and influence upon each other to be ascertained, after which we may for the first time estimate the share of syphilis in the various processes, which affect single systems and organs, as well as the general organism. Without such a circumspect distinction and estimate, it would be very unscientific to call affections syphilitic, which, although occurring in syphilitic persons, belong either to entirely distinct diseases, or else cannot be attributed to syphilis alone as the real and only cause. The references, so frequent at the present time, to syphilis in the case of exudations, ulcers, formation of scars, paralysis and pains, deserve a searching investigation, before being received into the good material of unbiassed, sound judgment, however ingenious may be the analogies and hypotheses offered in their favor.

IV. Lastly, the group *pseudo-syphilis* embraces those forms which, in their seat, specified origin, form, course and method of treatment, offer more or less resemblance to syphilis, but which by more accurate knowledge may be referred sometimes to the latter, sometimes to entirely different groups of disease—as lupus, the more frequently occurring endemic syphilides, skenlievo, radesyge, &c.; also the maculous, papulous, and pustulous eruptions.

According to this division there were, for instance, in the year

1860 (in the *Allgemeine Krankenhaus*): 455 gonorrhœal forms, 375 primary forms, 488 secondary forms, and 83 pseudo-syphilides.

This method of classification has been followed by me in the separation and treatment of the various forms, both in clinical representations, and the yearly review of the syphilitic department, and in dividing the primary—*contagious*—from the secondary—*contagious and infectious*—forms, the affection of the lymph-glands has been adhered to, as the only real ground of distinction between the two. The diagnosis of a succession of cases accordingly is not made at the entrance of the patients into the institution, and only after they have been some time under observation, for the present state of our knowledge does not yet allow any other reliable process. For the purpose of diagnosis, as well as for the treatment founded thereon, the question of variety and number of the contagious principles seems to me a subordinate one, because, as already explained, the first forms of disease do not often afford signs so sharply defined that we can immediately and safely distinguish between the contagious and infectious forms; and accordingly we are *not at all* able to form a reliable conclusion in regard to the original form or that which is to follow. Whether one is a believer in the “unitarismus,” the “dualismus,” or even the “trinitarismus,” it is only continued observation which, in any great number of given cases, can determine in reference to their diagnosis and classification. On the other hand, the theory of dualism affords so simple a standpoint for the *explanation of these processes*, that a juster estimation of the same should not be cast aside by a stubborn preference for the already accepted, although hypothetical theory of unitarism, especially as the doctrines of dualism are of high importance in more than one relation to therapeutics and hygiene.

[To be concluded in our next.]

DIPHTHERIA.

[Communicated for the Boston Medical and Surgical Journal.]

[THE following account of Diphtheria, as it occurred in the town of Wellfleet, in this State, in the year 1857, has been kindly furnished us by Dr. H. I. Bowditch, to whom it was sent in a letter by Dr. T. N. Stone, of that place, dated Nov. 2d, 1858.—EDS.]

Preceding the appearance of diphtheritis, and in the locality where it began, typhoid fever and diarrhœa, with stomatitis, prevailed. One striking peculiarity of disease, during the summer and autumn of 1857, in this town, was its strong tendency to a particular locality. Diphtheria began on a street on the eastern side of a long hill skirting our harbor, and kept the direction of that street in its march through the town, covering a width of one fourth of a mile. This was the infected district for two or three months, and I know of no case that happened outside of these

limits, unless the patient had come (within a few days previous to the attack) from the diseased neighborhood. But commencing at the shore, and passing up the street mentioned, the first house had four cases of typhoid fever and two of diphtheritis; the next, one of diphtheria, followed by fever; passing one house, the second had two of fever, and one of diphtheria; the second from that, two of diphtheria; two houses opposite, three cases of diarrhœa, with aphthous ulceration of the mouth; passing another house, we come to two cases of diphtheria; then one, then two, then five; afterwards, in the same line, in nearly the same ratio, through the village.

When this peculiar disease (call it diphtheria, diphtheritis, or the vulgar throat-ail, as you please) first visited us, it had the appearance of membranous croup, and such I pronounced the first case to be; but soon it began to put on distinctive features. For the first month, those that died seemed to die of asphyxia. The patients were children, from five to ten years of age. With three exceptions in the whole disease, they were of that age—no infant dying with it, and no adult, though many had the disease.

The first cases presented the following symptoms on the first visit. The skin had a peculiar sickly heat, or a damp coolness; the face was pallid; the whole appearance being languid. The breath had a fœtid smell. The patient was unable to breathe through the nose, the nostrils being lined with a false membrane of a yellowish white, upon a red base. This membrane extended through the nostrils, lined the pharynx, was reflected over the uvula, and reached the roof of the mouth. When torn from the uvula or tonsils, it formed a perfect cast of the parts from which it was torn. Sometimes the patients coughed up large patches; and one, a cast of the upper part of one of the bronchia.

The voice was hoarse, and there was often a slight cough. Great restlessness during the night, and prostration during the day, marked the whole course of the disease. The cough became more frequent and brazen, fits of great oppression of the chest, and cold extremities, occurred more often, and in the course of a week the little patient sunk, exhausted, or lingered with a low typhoid fever for two or three weeks, and then began slowly to convalesce.

After the first month, the disease took a new phase. Instead of passing down the larynx and simulating croup, it passed down the œsophagus; the patient then began to complain of nausea and faintness at the stomach; the extremities became cold as death, vomiting ensued, so that a teaspoonful of cold water provoked violent retching. In one case, hæmatemesis continued every hour, two days before death; the pulse fell to 50. A slow pulse marked every stage of the disease. In one case it fell to 45, a week previous to death, in a boy of ten years, and no stimulus affected it in the least. These patients died of exhaustion, suddenly fainting

and never recovering from it. Engorgement of the lungs and internal organs prevailed in these cases. After death, a beautiful waxy hue, flesh soft and pliable, and limbs flexible, were noted.

A singular calmness and fearlessness of death marked the fatal cases. The patients seemed firmly persuaded that they should die, even after they seemed to be convalescent. They distributed their little stores of toys and books, made arrangements for their funeral, and seemed to long to die. I have seen many a christian pilgrim "lay scrip and staff aside," but seldom such a beautiful serenity as shone in the countenances of these early called to the spirit land.

Convalescence.—This was always tardy and prolonged, seldom commencing till the close of the first month. The least exposure provoked a return of illness. The system seemed laboring under some potent poison. Patients, for three or four months, stalked about like lank and languid ghosts—the voice hoarse, the appetite capricious, the face pale, and the whole exterior anæmic.

Sequelæ.—1st, Dropsical effusions. 2d, Strabismus, double vision, partial blindness, continuing for a month or more. 3d, Chorea, great nervous irritability, in one case partial insanity.

Treatment.—In the early cases, emetic of ipecac, tart. ant., lobelia, sanguinaria, zinc, nauseating doses of antimony. Continued emetics, I think, are injurious, adding to exhaustion and distress, without relieving the patient. In later stages, tonics, quinine, &c., with stimulants. Chlorate potass. in the slighter cases did well, if pushed freely.

Local Applications.—Externally—sinapisms, cold water, &c. Internally—cauterizing with solid nit. arg. Steam was tried; chlorate potass. wash, cayenne, salt and vinegar. During convalescence, tonic and iron. I have now a case under treatment, and am trying gum guaiac., and chlorate potass.

I know of no better treatment than an emetic at the outset, an early exhibition of tonics, chlorate of potass., and cauterizing with nit. arg.

Concerning the disease itself, I can only say that I consider it a peculiar atmospheric poison, affecting the blood, wasting it of its clot, and having a peculiar depressing effect upon the nervous system.

With regard to the question of connection with scarlatina, I have to say, that a mild form of scarlatina prevailed on one side of our harbor, without cynanche, while diphtheria prevailed on the other shore. In three cases it followed mild scarlatina.

I have had three or four cases this autumn—one fatal, and the only *post-mortem* examination I ever could obtain. It showed appearances as mentioned in the last Medical Journal; specks of exudation on the larynx, trachea much infected, redness and inflammation increasing as we proceeded towards the bronchia.

Such is a hasty sketch of diphtheria, as it showed itself in this

town, and in no other on the Cape, with the exception of two or three cases that went from this town. In a practice of fifteen years, I have met with no disease in which medicine availed so little—none whose return I should fear so much. Right glad should I be, if your superior knowledge, or that of your associates, could point the way to success in its treatment. I earnestly hope that the experience of my brethren will be less painful than my own, if diphtheria must prevail in this country. Out of some seventy-five cases, twenty were fatal; three of the ages of 17, the rest children from 5 to 10, and one whose merry laugh, bright eye and sunny hair is still sadly missed in the home of

Your friend,

Wellfleet, Nov. 2, 1858.

T. N. STONE.

Army Medical Intelligence.

[From our Special Correspondent.]

WASHINGTON, D. C., DEC. 21, 1861.

MESSRS. EDITORS,—The following interesting case I submit to you and your readers as the next in my series—the first patient, I believe, whose history I have given you, thus far, who belonged to the Old Bay State; as such, it may to some be more interesting.

Private W. H., 1st Mass. Vols., Co. E, aged 25. Patient admitted Sept. 25th, 1861. On Sept. 17th, eight days prior to admittance, he was standing with both hands crossed over the muzzle of a gun, and with one foot carelessly resting on the guard. His foot slipped and the piece was discharged, the ball passing through the left hand near the wrist, and through the right just below the base of the forefinger, between the metacarpal bones. The tompon of the gun was also discharged, splintering and lodging itself in the left hand. This occurred at Port Tobacco. He was carried up to his camp, at Bladensburg, a distance of 42 miles, cold-water dressings only being applied to the wounded parts. He was here examined by the Brigade Surgeon, also, I think, from Massachusetts, and he expressed his opinion that the hand could be saved, and dressed it. The night previous to his admittance, secondary hæmorrhage commenced, and the patient again lost much blood, and passed the night in wild delirium. When he was brought in he was extremely pale and almost pulseless, and his feet were icy cold. Artificial warmth was applied to the feet, &c., and stimulus, in the form of milk punch, given. The left arm was excessively swollen, even up to the axilla, and erysipelas had set in to no inconsiderable extent. He was placed under the influence of ether, and the wound of the left hand was first examined. The bones of the carpus were broken. The wrist-joint was open, and filled with blood and pus, and amputation was by all deemed a matter of necessity, and was accordingly done at the wrist-joint. The muscles were divided across, and the flaps were made from the skin. Three ligatures only were applied, and the edges were then brought together with sutures and adhesive strips, and a lotion of lead, opium and water

placed over the whole. Brandy, beef-tea, iron and quinine were given daily, and the wound in the right hand injected with Labarague's solution, diluted. The amputated hand was then examined, and I give you a correct result of the examination, and let it be asked and answered whether or no the hand could possibly have been saved?—whether or no this is conservative surgery?

Appearances of Hand after Operation.—Wound ragged and stellate. Nearly half of the tampion was removed in splinters through the palmar surface of the hand, having been in during the whole eight days. Pus had burrowed up the forearm between the muscles. The uniform bone was very much comminuted. Many loose pieces were found in the wound. Intercarpal articulation open, and full of pus. Pus in radio-ulnar and radio-carpal articulations. All the bones of the second row of carpus, except the trapezium, were comminuted. Some fragments were lying loose, and others were adherent to the soft parts. The heads of three metacarpal bones were comminuted, and there was a longitudinal fracture of the metacarpal bone of the ring-finger. This is the result of the examination. It seems to me that it would be idle to suppose that this hand could have been saved.

Sept. 29th.—Sutures removed. Edges had partly united.

30th.—Ligatures came away. Some suppuration.

Oct. 4th.—Patient sitting up, and doing well. A quarter of a grain of sulphate of morphia given at bed-time.

Nov. 4th.—Discharged entirely cured.

II.

SURGICAL CASES IN THE ARMY OF THE POTOMAC.

[Communicated for the Boston Medical and Surgical Journal.]

Wounds of the Head.—Wounds of the head observed in our camp during the last three months have not been numerous. One case occurred, in which the soft tissues of the forehead were turned up three or four inches; another in which the eyebrow was divided in the vicinity of the supra-orbital nerves, producing cataract and other injuries of the eye, by concussion. In another case a contused wound, with some laceration of the soft parts on the back part of the head, got well in a few days by simple dressings. In another case the scalp was torn across the top of the head between the ears, some four or five inches, down to the pericranium, and separated considerably from the hard parts. This was a lacerated wound, in a teamster, and was caused by a broken branch in riding under a tree; it healed without suppuration. The last wound of the head which I will mention was one from a pistol ball. The bullet passed through the palate, the brain, and the bone of the skull, and was found immediately under the scalp, with a portion of the skull on its flat side in the upper part of the occipital region. This was a case of suicide, and death occurred instantaneously, in the same way that it does in the lower animals when the medulla oblongata is suddenly divided, as I have seen in the lecture-room of Magendie and at the shamblés in killing calves.

Wounds of the Face.—The wounds of the nose. Among these have been several bites by horses. Acoff, of Co. F, going out of his tent one dark night to empty his stomach, was suddenly bitten by a vicious horse picketed close by, and the soft parts of his nose crushed in several pieces. Both wings were partially separated, and the cartilages exposed. The tip of the nose was taken entirely off. In order to

keep the parts in position, the nostrils were filled with cotton, and the fragments strapped down upon it with isinglass plaster. A Pibrac's case was made of felt and lined with patent lint covered with cerate and placed in position. The patient was young and healthy, and the wound healed by the first intention, leaving the nose with very little deformity. Kicks upon the nose, contusions from falls, accompanied with epistaxis, and lacerations of the soft parts, are not uncommon.

Fracture of the Lower Jaw.—Thomas Haviland, Corporal in Co. I, (Nov. 3d), was kicked by a horse in the lower jaw, on the right side, near the angle, and received a fracture at the symphysis. The accident was accompanied with effusion of blood in the eyelids of both eyes and on the eyeballs. The nose bled freely. The right side of the face was considerably contused, especially at the angle of jaw.

Treatment.—A piece of felt was moulded to the jaw, then lined with patent lint and kept firmly applied by means of the ordinary double bandage for these fractures. The teeth being uneven, and not adjusting themselves very well, a flat piece of wood was cut in a lunar form, and placed between them. The mouth was then firmly closed by the bandage, and was tightened from time to time, as they became loose, for three weeks, during which time the wood was retained in the mouth. The fracture has now (Dec. 14th) healed firmly, and the patient is doing full regimental duty. The concussion of the brain has left a slight tendency to vertigo, especially on stooping.

The lips, cheeks and chin have been variously lacerated and contused, by falls and otherwise. These have not been of sufficient importance to deserve special notice.

Wounds of the neck have not been common or serious.

Injuries of the Shoulder.—Among these are three cases of fracture of the clavicle, and three of luxation at the shoulder-joint.

The first fracture of the clavicle was very near the external extremity, and produced very little deformity. It was caused by a fall from a horse. The patient was restored to duty in about twenty-eight days. He is now quite well, and uses the arm, which is the bridle arm, with freedom.

The treatment consisted, first, in the use of *Velpéau* oblique bandage, with the hand of the injured side placed upon the well shoulder. At the end of six days this was removed, and the second and third bandages, with the axillary pad of Dessault, were substituted. Six days afterwards these were removed, and a simple circular bandage and suspensory one were used for the balance of the time.

The second case was a fracture near the external extremity also, and the treatment was the same, with like results.

The third and last case, J. D., of Co. G, is now under treatment and doing well. The fracture is at the junction of the outer with the middle third. The elevation of the inner fragment was much greater than in the other cases, and required a special application of pressure downward, with strong counter-pressure on the elbow, to keep it in place.

The same treatment was resorted to in the beginning as in the former cases, except that the bandage had to be drawn very tightly in the direction indicated. The patient, however, is a strong, muscular man, and bore it well. After a few days, a combination of *Velpéau* and Dessault bandages was resorted to and is continued to the present time. Twenty days have elapsed, and the patient is doing well. This

fracture was caused by a fall from a horse while at full speed, and the horse falling over the man. No internal injuries accompanied this accident.

Luxations of the Shoulder-Joint.—CASE I.—Corporal Williamson, of Co. I, in the unfortunate affair of the 29th of September, between the pickets of the New York, California and Pennsylvania regiments, fell from his horse, was run over and trampled upon, and was afterwards picked up with dislocation of the left shoulder-joint and severe contusions all down the left side, including the arm, hand, hip-joint, thigh, leg and foot.

When brought to the hospital at Camp Advance, in the morning of the same day, the luxation had been reduced, but the patient was in a very prostrated condition on account of the contusions and shock. The treatment, of course, consisted in properly supporting the arm and shoulder, and at first supporting the system, and then attending to the contusions. On leaving Camp Advance, on the 11th of October, the patient was placed in the brigade hospital, Chain Bridge, where he still (Dec. 12th) remains. His general health had been entirely restored, until about the middle of November, when he was attacked with typhoid fever. He has now recovered from this, but the arm and shoulder remain wasted and almost useless. He is about being discharged with a pension.

CASE II. was that of a teamster, who fell from his horse, near Camp Stoneham, and three days after was taken to the tent of Surgeon S., of Harlan's Cavalry. The luxation was at first downward, but as is very common when sufficient time intervenes, the head of the humerus had been drawn upward and forward under the great pectoral muscle. After slight manipulation over the knee, the patient sitting on a camp stool, he was placed upon his back, and having taken off my boot, my left heel was placed in his axilla, and, with the assistance of Surgeon S., extension and rotation were applied, until the head of the bone slipped into its cavity with an "audible snap." The case did well.

CASE III.—This was one also of luxation of the shoulder-joint, and caused by falling from a horse. The displacement was reduced by Dr. Y. The patient remains under treatment.

Various contusions, external and internal, of the shoulders and back, not involving fractures of bones, might be cited. These wounds place the parts in a condition requiring almost as much time to restore them to health, as cases in which bones are fractured; and in some instances, longer. Sloughing or abscesses have seldom been the consequences of these contusions. In one case, however, so much injury was produced in the second and third ribs, near the sternum, by the kicking of a gun, that caries of these bones has been established, and small portions have been discharged from time to time. This injury involves some pleuritic, and, perhaps, pulmonary adhesions, which make respiration difficult and prevent the free use of the right arm and shoulder.

Gun-shot Wounds.—CASE I.—Ditleff Tharalson, a private in the 2d Wisconsin Volunteers, while leaning on the muzzle of a gun, with a roll of his blanket between the armpit and the gun, accidentally touched the trigger with his foot, and received a charge of three buck-shot through the armpit and shoulder. The whole charge appeared to have passed through, making a clean round orifice in the axilla and a large, ragged, grumous one on the top of the shoulder. Small portions of bone

were found in the upper wound. These were portions of the clavicle, which was shattered into pieces. I saw the man but a few minutes after the accident happened, and watched his features with great anxiety for some time, expecting to see him sink from internal hæmorrhage. The skin across the upper part of the breast, as in cases of rupture of the heart, became moderately purple. Some bubbles of air were emitted from the upper wound, accompanied with a small stream of blood.

The man was placed in bed, and his shoulders elevated, and cold-water dressings applied. No great immediate hæmorrhage followed, nor, strange as it may appear, has there been any secondary hæmorrhage. On our leaving Camp Advance, some ten or twelve days afterwards, he was transferred to the brigade hospital, near Chain Bridge, and subsequently to his regiment, under the care of Dr. Ward, Regimental Surgeon. A slight oozing of blood continued for about two weeks, with, subsequently, moderate suppuration, accompanied with the usual slough of a gun-shot wound.

Surgeon Ward informs me that the case has gone on very well, and the patient is now nearly restored to health. This is the more extraordinary from the proximity of the wound to the great vessels and nerves of the axilla. Great anxiety was felt, after the period of primary hæmorrhage had passed by, lest the sloughing process should let loose a sudden and fatal secondary hæmorrhage; but our fears have proved groundless, and nature has apparently worked wonders.

My sheet does not permit me to describe another case of gun-shot wounds in the right side, in which the bullet followed the seventh rib, and passed out opposite the spine. I will give this in my next.

Yours, &c.,

JAMES BRYAN,

Brigade Surgeon to the Army of the Potomac.

We are indebted to the kindness of the Surgeon-General for the following extracts from letters of Massachusetts surgeons at the seat of war.

To the Surgeon-General. { CAMP SPRINGFIELD, NEAR ANNAPOLIS, MD.,
November 30th, 1861.

SIR,—I transmit herewith the monthly report of the sick of the 27th Regiment Massachusetts Volunteers, required by paragraph 1262 of the Revised Regulations. I should have sent it sooner, but was unable to procure the necessary blank forms. I have ventured to include in the report the sick list for the last week in September, so that it comprises a statistical return of all the sickness of the regiment while encamped in Massachusetts.

The kind indulgence with which you permitted me to communicate with you each week, or oftener, in regard to the medical affairs of our regiment, enabled me to offer nearly everything I had to say respecting the topography of the station, the hospital accommodations, the sanitary regulations of the camp, &c. I also reported in detail the only case of sickness of unusual interest that occurred during the sojourn of the troops near Springfield. I will not trespass on your patience by repeating the observations I have already made.

I would ask leave to say a word in condemnation of the "wedge tents" issued to our men. If this was the only form of tent in use, I should be a convert to the views of the late Surgeon-General of the

British Army, Dr. Jackson, and believe that it would be far better to burn up the tents and trust for shelter to huts. The wedge tent, occupied by six men (when, as in our case, 160 only are issued to a regiment), affords but 32 cubic feet breathing space to a man, instead of the needful supply of 120. The renewal of air is almost *nil*. On entering one of these tents towards 2 or 3 o'clock in the morning, the atmosphere is almost suffocating.

In Springfield, with the exception of two cases resulting from accident, the only dangerous cases we had were the six of typhoid fever. In the absence of other insalubrious causes, I could refer them only to the foul air of the A tents. Ours were struck twice a week, and the blankets and straw were daily aired; yet no sanitary precautions can make such shelters wholesome.

Of the six typhoid fever cases referred to, two (Lyman and Woffender) were left at home, after satisfactory assurances from their friends that no charges for indemnity for medical attendance, &c., would be brought against the State. One was convalescent, and three were brought with us and placed in the General Hospital at Annapolis, where they have since happily recovered, though not yet returned for duty. All six subjects were young, vigorous and athletic when they joined the regiment.

I have regretted that the men were not instructed, in Springfield, in the methods of cooking subsequently adopted. The cooks that made out very well with convenient stoves, proved awkward with trenches and camp kettles. The latter, in my opinion, are too few in number, and too small. The whole number allowed a company are used, for example, in preparing their coffee. There are consequently no vessels in which to pour off and clear this all-important restorative. After breakfast, there is a great hurry to cleanse the kettles and prepare for dinner. The meat or the soup is boiled *furiously*—to its detriment. Another impediment which I have encountered in efforts at culinary improvement, is the frequent changes among the cooks. The commanders of companies should assuredly be forbidden to permit this.

Except venereal diseases, the only contagious disorder that made its appearance at Camp Read was parotitis. Eleven cases occurred, all in one company (B), a company recruited exclusively from among a farming population. Metastasis to the testes occurred in two cases, but they were not troublesome.

It appears to the undersigned that the loose nature of the examination of recruits for the volunteer regiments detracts greatly from the efficiency of this force. Though about ten per cent. only of the recruits examined by me were rejected, yet I have subsequently found that of this small proportion a number were enlisted in other companies, after examinations by civil surgeons appointed for that purpose by the Surgeon-General. It appears to me that regimental surgeons would be better able to resist the importunity of officers solicitous to fill up their companies, if it was generally understood that the instructions issued from headquarters in regard to the examination of recruits were peremptory and immutable. Your ob't serv't,

GEORGE A. OTIS, Surgeon 27th Regiment.

To the Surgeon-General.

{ HEADQUARTERS 22D REG'T MASS. VOLS.
{ HALL'S HILL, VA., Dec. 2d. 1861.

DEAR SIR,—Another month has come and gone, and with it our re-

port has been made to Surgeon-General Tripler, or rather to the Medical Director, Dr. Lyman, of Porter's Division. It shows, this month, a slight increase of sickness compared with last, on account of more wet weather, it having rained here three times a week. The number treated in the hospital during the month is 33; remaining at last report, 7; taken sick during the month, 26; there are now remaining in hospital, 21. There have been four or five cases of typhoid fever, one of which has died, being the first death since the organization of the regiment. Ratio per 1000, $28\frac{1}{3}$.

Most of the cases prescribed for at surgeon's call, have been slight coughs and colds, occasioned in many instances by indiscretion on the part of the men. Thus far we think we can safely say that our regiment is *one* of the most healthy, if not *the* most healthy of those comprising the Grand Army of the Potomac.

Respectfully yours,

E. L. WARREN,
Surgeon 22d Regiment Mass. Vol.

{ CAMP HICKS, ANNAPOLIS, NOV. 28th, 1861.

To the Surgeon-General. { Med. Department 25th Reg't, M. V.

SIR,—It affords me great pleasure to forward, through the Medical Department, for the information of the State Authorities, the accompanying report of the sanitary condition of this regiment.

We have now been encamped at this place twenty-four days, during which time the number of patients treated in our hospital has averaged about eight. There has been one death from typhoid fever. Several patients, sick with rubeola, have been sent to the general hospital, in order to avoid exposing others. None of those at present on our sick list are in immediate danger, and most of them are convalescent. Our officers and men were highly gratified by the visit of His Excellency at our review, and hope we may enjoy the same pleasure again.

Yours, &c.,

J. MARCUS RICE, *Surgeon.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 26, 1861.

KEROSENE.—There has been pointed out to us a statement concerning this substance in an advertising sheet said to be widely distributed, in which it is represented that "it is the opinion of the most eminent physicians in the country, that the inhaling of the gas which arises from the burning of kerosene or coal oils is steadily but surely destructive of human life"! Now as it has been a source of real satisfaction to us, that this admirable illuminating liquid is so generally superseding the various explosive compounds which, under the name of camphene, burning fluid and the like, have been the cause in recent years of such wide-spread destruction of human life, and as on this account, if for no other, we believe its introduction has been a real blessing to the community, it is somewhat trying to our patience to see it decried in this manner, without the slightest reason or shadow of truth. Of course, the disparaging statement is appended to an advertisement of another

illuminating fluid, which the proprietors hope to introduce by falsely calumniating kerosene. The preposterous statement quoted is followed by a certificate (which looks very much as if it were originally written as an appendix to a previous puff of the article in question, in which no mention is made of kerosene), signed by an individual who styles himself physician, but of whom all we can learn is, that he is classed among the *Eclectics*, so called, and of whom consequently no more need be said. We wish merely to record our flat contradiction of the statement which we have copied. Pure kerosene is a hydrocarbon, which, when used for purposes of illumination, is a perfectly innocent thing. The products of its combustion are carbonic acid and water, and are no more deleterious to health than are the compounds produced by the burning of a sperm-oil lamp. As there may be some persons in the community who might be deceived by the assumed opinion of physicians against it, we have felt it our duty to expose this misrepresentation, as it might have some influence, uncontradicted, to the injury of a very valuable article of domestic use. Such tricks of trade are very unfair, and too often similar unfounded general statements of professional opinion are allowed to pass unexposed, to the manifest injury of the community.

OUR attention has been called to the fact that in the *JOURNAL* of November 20th we published, as original, an article on "The Secretion and Uses of the Bile," which appeared, under the authorship of Prof. St. John, in the *College Journal of Medical Science* of February, 1858, published in Cincinnati. It is needless, we trust, for us to assure our readers that we were entirely innocent of the imposition thus practised upon us. We leave the author of it to his own reflections, hoping that he may not again be tempted to such an act.

INSTITUTION FOR THE TREATMENT OF CHRONIC DISEASES.—Our readers may not all be familiar with the fact that an establishment for the treatment of chronic diseases of females has for several years past been in successful operation among the pleasant hills of Berkshire, under the superintendence of Dr. C. T. Collins, of Great Barrington. We are glad to hear that this institution, which presents unusual inducements to patients who are without the accessory means and facilities of treatment at home, still continues open, notwithstanding the pressure consequent upon the war. Dr. Collins has had large experience in the treatment of this class of cases, having devoted himself to it for a considerable portion of his professional life, and we take this opportunity to recommend his institution to the profession, because we know it to be in the hands of a skilful physician, and because we believe that the healthfulness and beauty of the location afford the means of fulfilling an important indication in the above class of affections.

QUERY. *Messrs. Editors*,—In the neighborhood of St. James St., Roxbury, there is a reservoir, which supplies a considerable number of families. The water is said to be derived from a spring at the foot of the hill. Is it so?

The inquirer was lately induced to have a chemical examination of the water made, on account of a sick family, to whom it was supplied. It was found to contain a considerable proportion of Epsom salt.

Part way down the hill is a Catholic burying ground. Epsom salt is a favorite medicine with the Irish population.

Is there any connection possible between these two facts?

C. E. B.

In a letter of Dr. Peters, Surgeon at Fort Warren, Boston Harbor, to the *American Medical Times*, the writer makes the following allusion to the kindness and efficiency of our State authorities to the sick under his charge:—

“The order, concentrating from various parts the political and war prisoners at Fort Warren, Boston Harbor, was issued in the latter part of October, and was immediately carried into effect. The order gave me but short notice to obtain a suitable supply of medicines, stores, and bedding, for about sixty patients, who it was thought would be benefited by the change. The Medical Purveyor of New York (Dr. Satterlee, U.S.A.) promptly furnished me a field supply of these articles, and as the fort had been garrisoned by Massachusetts Volunteers, it was supposed the hospital there would be more or less provided. Unfortunately, the volunteers, on evacuating the fort, had carried away or expended most of the supplies, leaving only a sufficient quantity for the use of the mechanics and laborers engaged on the works; therefore, until additional supplies could arrive from New York, there might have been some just cause of complaint. The able and indefatigable Surgeon-General of the State of Massachusetts, together with the truly charitable citizens of Boston and the vicinity, offered every assistance and sent comforts to the sick prisoners of war, which tended to alleviate their helpless condition. It would be foreign to my purpose for me to herein mention individual instances of philanthropy and sympathy, extended towards a suffering enemy, as it has been my pleasure to here witness them; therefore, let it suffice for me to say that the sick under my charge fully appreciate this kindness, which to them was unexpected.”

INTRODUCTION OF CHINESE FISH INTO FRANCE.—The rage for acclimatation is at its height in France just now, and we may soon hope to see canvas-back ducks, bird's-nest soup, and edible *boule-douges* on the bill of fare at the *Trois Frères*. Meanwhile the immediate bent of the Government seems to be the introduction of Chinese fish into this country. We are promised amongst other delicacies from the Celestial Empire the “cow fish” or “tsa-in,” a creature so called from the fact of its eating chopped grass; its flesh is said to be very fine, and when in prime condition the “tsa-in” may exceed 100 lbs. in weight. The Chinese fish in early life are fed, it would appear, upon duck's eggs, and at the age of puberty are promoted to crushed peas or beans, and receive two, three, or four repasts a day until judged fat enough for the table. When very young, the fish (at least so M. Simon, from whose report to the Minister of Agriculture I have gleaned my information, assures us) are subject to a certain malady, a sort of distemper, which carries them off wholesale, unless suitable treatment, in the shape of the juice of certain leguminose fruits added to the water, be resorted to.—*Paris Correspondent of London Lancet*.

TREATMENT OF GOUT.—Trousseau conceives the following combination, proposed by M. Becquerel, to be most efficient:—Sulphate of quinine, twenty-two grains; extract of colchicum seeds, eight grains; extract of digitalis, four grains. Divide into ten pills. Two or three of these pills should be exhibited in the course of twenty-four hours, for two, three, or four successive days. The success is sometimes wonderful, the excruciating pain of a genuine acute paroxysm yielding in seven or eight hours, and the attack itself subsiding in two or three days.—*Dublin Medical Press*.

MEDICAL STUDENTS IN LONDON.—We understand that 1116 students have registered this session as pursuing their studies at the twelve metropolitan schools, against 1228 last year, showing a decrease of 112. The number of new entries amounts to 344, against 483 of last year, showing a decrease of 139.—*Lancet*.

CATARACT OPERATIONS.—Dr. Rivaud-Landrau, of Lyons, publishes, in *L'Union Médicale* of October 1st, very valuable statistics respecting 2317 cataract operations (extraction, couching, and tearing) performed by himself during twenty years. The author enters into many details which will prove extremely interesting as a basis for ophthalmological conclusions. Of the main results, we may state that, out of the 2317 operations by the three methods, 1921 were completely successful; 141 partially so; and 255 were failures. Out of the latter, however, the operation was tried again, and proved successful, in 19 cases. As to the method of operating, the author finds that, by comparing the successful operations with the failures, the latter give nine per cent. for extraction, and thirty-nine per cent. for couching. Dr. Rivaud has, therefore, almost given up couching, except in peculiar cases. Tearing failed in only five per cent. of the cases; but is only applicable in congenital or soft cataracts.—*London Lancet*.

A SECOND MILITARY HOSPITAL has been recently organized in Cincinnati, under the medical charge of Dr. C. McDermont. The Sisters of Mercy have charge of the nursing department, and perform their duties in their usual efficient manner. The appointment of Dr. McDermont to this post is an excellent one. The building used is a portion of the old German Catholic Asylum, on Third street.—*Lancet and Observer*.

SURGICAL PROMOTION IN THE ARMY.—Dr. J. H. Warren, late of Neponset, who went out as Surgeon of one of our Massachusetts regiments, has, we understand, been appointed Medical Director and Division Surgeon for Casey's Division, in Washington City. The beautiful residence of Mr. Stone, on Mt. Pleasant, has been offered by him to Dr. Warren for a division hospital.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 21st, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	38	46	84
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	38.7	37.0	76.7
Average corrected to increased population, . . . . .	..	..	84.45
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria
16	0	2	5	5	0	0	8	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Dec. 14th.

Mean height of Barometer,	30.009	Highest point of Thermometer,	58.0
Highest point of Barometer,	30.608	Lowest point of Thermometer,	18.0
Lowest point of Barometer,	29.770	General direction of Wind,	W.N.W.
Mean Temperature,	40.0	Am't of Rain (inches), including rain and melted snow of the previous week,	1.42

COMMUNICATIONS RECEIVED.—Case of Puerperal Fever.

PAMPHLETS, &C. RECEIVED.—Notes on the Surgery of the War in the Crimea, with remarks on the Treatment of Gun-shot Wounds. By George H. B. Macleod, M.D., F.R.C.S. Philadelphia: J. B. Lippincott & Co. by J. W. Light, Boston). Price \$1.50.—Pathology of the Reproductives, &c. Trall and Jackson. Boston: B. Leverett Emerson, 112 Washington St.

MARRIED.—At South Malden, 17th inst., Edward P. Colby, M.D., of Concord, N. H., to Miss Annie S. Judson, of S. M.

DEATHS IN BOSTON for the week ending Saturday noon, December 21st, 84. Males, 38—Females, 46.—Accident, 4—apoplexy, 1—congestion of the brain, 1—bronchitis, 6—burns, 1—cancer (of the breast), 1—consumption, 16—convulsions, 2—croup, 2—debility, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—scarlet fever, 5—typhoid fever, 8—gastritis, 1—hæmoptysis, 1—disease of the heart, 3—disease of the hip, 1—infantile diseases, 3—intemperance, 2—congestion of the lungs, 1—inflammation of the lungs, 5—measles, 1—old age, 2—puerperal disease, 1—sore throat, 1—disease of the spine, 1—suicide, 2—tumor (abdominal), 1—thrush, 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 8—between 20 and 40 years, 25—between 40 and 60 years, 10—above 60 years, 10. Born in the United States, 57—Ireland, 24—other places, 3.

THE

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THURSDAY, JANUARY 2, 1862.

No. 22.

CASE OF PUERPERAL FEVER.

BY GEORGE H. W. HERRICK, M.D., BILLERICA, MASS.

[Communicated for the Boston Medical and Surgical Journal.]

MRS. K. was confined for the third time, Nov. 5th. Labor natural; duration, about six hours. She gave birth to a female child, weighing 9 pounds. Nov. 8th, at 11 o'clock, A.M., I saw the patient. Her tongue and pulse were natural, and, except a slight soreness of the left nipple, she appeared perfectly comfortable. As she had had no operation of the bowels since confinement, I ordered half an ounce of castor oil to be taken. At 2 o'clock, P.M., of the same day, she was taken with a violent "chill," lasting for half an hour, followed by febrile reaction, with severe pain in hypogastric region and in back. Warm applications and hot teas were given by the nurse. I did not see the patient till the following day,

Nov. 9th, 1 o'clock, P.M., when the following symptoms were noted:—Countenance pallid and anxious. Severe headache. Tongue covered with a thick white coat. Skin hot and dry. Pulse 116, and small. Had not slept any during last twenty-four hours. No drowsiness now. She complained of a sense of "soreness of flesh." There was extreme tenderness in hypogastric and left iliac regions. Abdomen tympanitic. Limbs drawn up. Decubitus, dorsal. She had just had a large discharge from the bowels. Hop fomentations were directed to be applied to abdomen; the room to be kept dark and quiet. A pill, containing one grain of opium and two grains of calomel, to be given every three hours.

10th, 9 o'clock, A.M.—Headache still severe. Tongue red at tip and edges. Had been delirious during night. Pulse 110. Tenderness and pain in abdomen had extended to right iliac region, but were less in degree. There was also some tenderness in left hypochondriac region. Some nausea. She perspired freely during night, but had not slept. Applied cold to head. Gave a

powder of one grain of opium and one grain of sulphate of quinia every three hours.

3½ o'clock, P.M.—Dr. Bickford, of Charlestown, was called in consultation. Symptoms were same as in morning, except the pulse, which was 100. The powders had produced some nausea and vomiting. The hop fomentations to the abdomen were continued, and a pill, containing one grain of opium and two grains of sulphate of quinia, given every three hours.

11th, 8 o'clock, A.M.—Pulse 90. She had not slept during the night, but was drowsy this morning. Pain and tenderness less in abdomen. Less tympanites. Tongue dry and red in centre, and at tip and edges. The treatment continued. Ordered her clothes, which were wet with perspiration, to be changed with as little disturbance to patient as possible.

12th, 8½ o'clock, A.M.—Pulse 85. Stupor. No pain in abdomen, but some tenderness on pressure. There had been great heat at times during the night, followed by copious perspiration towards morning. Ordered the following: *R* Opii, gr. ss., sulph. quinia, gr. ij., made into a pill, every three hours.

13th, 8 o'clock, A.M.—Pulse 70. Less stupor than yesterday. Has had no sleep. She took a little gruel this morning.

14th, 9 o'clock, A.M.—Pulse 62, small. Tongue red and dry. Abdomen but slightly tympanitic. Had slept at short intervals during the night.

15th, 9 o'clock, A.M.—Pulse 68. She is very weak. Gave a pill containing two grains of sulphate of quinia every two hours.

16th, 8 o'clock, A.M.—Pulse 60. There is less tenderness in abdomen. No headache. Sweats profusely. Directed that her clothes should be changed daily. Discontinued the hop fomentations. Her limbs had been cold during night. Ordered beef-tea and chicken-broth in small quantities at a time, and often repeated.

17th, 10 o'clock, A.M. Pulse 62. Left limb had been cold much of the time during the night. Directed wine whey to be given freely.

19th, 10 o'clock, A.M.—Pulse 80, small and weak. Stupor. She had a dejection last night, since which she has complained of some pain and tenderness in abdomen. Was chilly yesterday afternoon. Gave a tablespoonful of brandy every three hours. Pills as before.

20th, 8 o'clock, A.M.—Dr. Bickford again saw the patient with me. Pulse 75. Had a small dejection last night. Less pain than yesterday, and no stupor. Slight soreness about bowels. Same treatment to be continued.

21st, 8 o'clock, A.M.—Pulse 64. No dejection. Less perspiration. Has taken more broth than before, and ate some milk toast.

22d.—Pulse 68. Temperature has been natural. Gave one grain of sulphate of quinia, in pill, every two hours. Tablespoon-

ful of brandy every four hours. She continued to improve steadily under this treatment, and on the 24th inst. she sat up twenty minutes, and ate some chicken. Appetite returning. The brandy was omitted, and the pills continued less frequently.

26th.—Pulse 70. Appetite good. Ordered an injection of thin gruel. Diet—beef-steak, chicken and milk toast.

30th.—She complained of a disagreeable, foetid discharge from vagina, for which I ordered injections of warm water.

Dec. 7th.—She has dismissed her nurse, and is now taking care of her child. Has a good appetite, and is fast gaining her strength.

December 20th, 1861.

ON THE DIVERSITY OF INFECTIVE MATTER, AND THE DIVISION OF SYPHILITIC FORMS OF DISEASE FOUNDED THEREON.

[Concluded from page 423.]

ACCORDING to the representation of the dualists,* the hereditarily-called syphilitic and venereal ulcers, together with the combined forms of their sequelæ, divide into two *original and therefore really separable* groups, which, in spite of their partial and apparent resemblance, are yet *entirely* distinct in their origin, course and termination; namely, into the group of soft, contagious ulcers—"chancre," and that of the hard, infectious ulcers—chancre.

The *soft, contagious* ulcer ("chancre") has its seat in the skin or mucous membrane, is single or multiple, often very numerous, arises most frequently from venereal contact by the transfer of pus from similar ulcers within the interval of a few (1, 2, 4) days, and leads to manifest destruction of tissues, according to individual constitution, anatomical seat and external influences, sometimes even to inflammation of the most nearly connected lymph-glands and its consequences (suppuration, &c.), *never, however, to any other affection of other and remoter organs and systems.* Should pus form in the inflamed tissues, it may be inoculated, and thus produce a soft, contagious ulcer, resembling that from which it originated. There are never developed, however, any such sequelæ as to indicate a general affection of the system, *as poisoning or infection of the same*, but in the worst cases even, the contagion is confined within the anatomical limits of the nearest lymph-glands. The pus can, indeed, be transferred to various parts of the skin in succession, but always reproduces there *similar, local* processes, affecting generally, but not always, the neighboring glands, and the whole course of the chancre exhibits, therefore, only purely local affections, produced each time by the fresh transfer of the contagious matter, always *contagious* and never infectious forms. There

* I follow, in this sketch of the leading views of the dualists, information which I have obtained both from what has appeared in print, and from correspondence and conversation with them.

is no such thing as a transition from chancreoid to chancre, and what is generally designated as such, is an inoculation of the soft upon the hard ulcer, as will be explained under the "mixed" chancre. The ulcer of this group, the "chancreoid," has the circular form occurring in the syphilides, but a soft edge and a soft base, and retains the latter even during the formation of the cicatrix. It may spread by successive transfer over the surface of the whole body, and may attack the same individual in longer or shorter intervals of time, just as often as opportunity for *fresh* transfer is afforded.

The *hard, infectious ulcer* ("chancre"), having its seat in the skin or mucous membrane, and generally solitary, is produced by the transfer of pus, blood, or the exudative fluids of syphilitic patients containing these, in the course of from *two to three weeks*, seldom later, and beginning as a *hard*, uncircumscribed infiltration, which softens superficially at points, presents some resemblance to the soft ulcer in the sharply-defined, though chiefly shallow loss of substance (desquamation), and separation of thin pus. Once existing, the hard chancre never inoculates itself, *as such, further upon the same individual*, and acute inflammation of the glands (formation of pus and abscesses) in its neighborhood does not, *as a rule, occur*. On the other hand, there is developed in all the most intimately connected glands a hard infiltration, entirely or nearly painless. Similar processes affect, by degrees, the more distant groups of glands (in the region of the neck, shoulder, arm and elsewhere), accompanied by the outbreak of sharply-defined forms of disease upon the skin and mucous membrane (spots, papules, pustules, nodules, &c.), which generally receive the name of secondary syphilis. Additional affections of other organs and systems follow, and, like the eruptions, have the character of a general disease of the organism in the feeble support afforded them and the weakness of its own functions; in other words, they are caused by the *infection* of the nutritive fluids of the general system. The hard chancre has a circular form, hard border and base, and often retains this hardness in the cicatrix also for a long time. The destruction of tissue caused by it is generally only shallow and superficial, resembling a slight epithelial desquamation, and attended by the secretion of pus, thin and like the blood serum. The hard chancre, just as the sequelæ of general syphilis, attacks the same individual but once in life, never more. It is no farther inoculable upon the person bearing it, and just as little upon any body else once affected by a hard chancre. There is no such thing as the transition of a soft into a hard chancre, but the latter is hard from the beginning, nor of a hard to a soft chancre.

Were the above-given illustrations of the dualists capable of such a simple and clearly-defined demonstration by each observation on patients, the knowledge and division of these forms of disease would be quite as simply and closely settled; but in at-

tempting to harmonize these leading views with results drawn from the observation of patients from one case to another, there arise many doubts, which deserve further notice.

1. One observes cases of ulcers, which, at the beginning simple and soft, in course of progression *only gradually become hard*, while by degrees the nearest and then the more remote lymph-glands become affected, precisely as in the development of general syphilis, the forms of which, in fact, finally show themselves upon the skin and mucous membrane. Such cases appear not unfrequently, and without question follow precisely the above method of development. Accurate knowledge of single cases renders it positive that there has been no previous or contemporary disease, from some hard chancre, perhaps unobserved, and that no eventual softening of a hard cicatrix and destruction of tissue have given rise to any delusion or mistake as to the real form. The suspicion, also, of any subsequent transfer of infectious matter from a hard chancre upon a soft one fails. Of much more weight are these observations when founded upon cases in which a first and single connection afforded the only opportunity for the transfer of ulcers upon a previously entirely healthy individual, and the first sign of the transfer of the *soft* ulcer appeared during the first few (1 to 4) days, which was followed by the above-mentioned appearances of gradual induration and of general syphilis.

2. Cases occur, moreover, in which the soft ulcer becomes covered by the formation of a soft cicatrix, which latter *subsequently hardens*; also other cases in which the scar itself does not harden, but *the most nearly-connected lymph-glands*, as such, or in their cicatrices (with or without previous abscess-formation), become indurated, and subsequently the nearest and gradually the most distant lymph-glands are affected in a similar manner, while the remaining symptoms of general syphilis succeed just as after an indurated chancre. If, indeed, some isolated cases of this sort do allow other explanations of the cause of the syphilis, on the other hand others have been investigated with so much accuracy after the removal of all doubtful influences upon diagnosis and delusions in regard to origin, as to admit of no other explanation than that already given; viz., that *only gradually* an indurated infiltration is developed in the cicatrix and in the gland, just as in the ulcers. Induration of the scar of the primary, as well as of the glandular ulcer, takes place, and the gland itself introduces, accordingly, general syphilis.

3. Finally, one sees simple, soft ulcers, which, appearing soon (2 to 8 days) after connection, are followed at first by *similar* ulcers, subsequently, however, merely by the formation of pustules and papules. This process is observed most frequently, in women, on the labia, especially the larger, and the immediate neighborhood (perinæum, anus, folds of thighs, &c.); still also, in men, on the edge of the prepuce, the scrotum, anus, &c. *Gradually*, but

generally later than in the case of the hard chancre, *there are developed a universal affection of the glands and the same general symptoms which constantly and regularly follow the indurated chancre* (see *Weiner Mediz. Wochenschr. Jahrgg.*, 1860, Nos. 14 and 15). We allude here only to cases in which the first affection, the absence of hard chancres or scars, the possible later contamination of the soft ulcers with the infective matter of general syphilis, are beyond question, and I would expressly state that the formation of ulcers, pustules and papules referred to is by no means that produced by the contact of gonorrhœal matter.

4. There occur ulcers and cicatrices *with indurated base*, which are not followed by the subsequent affection of the glandular system and general syphilis, as in the case of syphilitic chancre. Such indurations are formed upon the prepuce, the outer integuments of the penis, and the scrotum, especially after cauterization, and generally in cases of protracted cicatrization, in anæmic individuals, even after simple injury, and one would be sadly in error if, judging *from the hardness alone*, he should attribute the character of the ulcer and its sequelæ to a real "*syphilitic*" contagion.

From all that has been said, then, it follows, that the beginnings of the simple contagious and the infectious ulcers are *not always* so characterized; moreover, that the appearances are not at all so sharply marked, as the theory of dualism represents; that, consequently, the diversity of the infective matter cannot always, or in the majority of cases even, be certainly determined from the *first* appearances at the point of transfer; that this one-sided view cannot always be used for positive diagnosis and prognosis, and, consequently, especially in the first stages of the disease, may lead to incorrect diagnosis and prognosis, and that, on the contrary, this can only be accomplished correctly and unmistakably by long-continued observation. In the present state of our knowledge we cannot say decidedly more than that there is a dualism of form; whether and how the same is to be explained, *with truth*, by a dualism of contagion, does not yet satisfactorily appear, in spite of the ingenious arguments and theories offered, and investigations in regard to it are still to be continued, before we can come to any conclusion founded perfectly on facts.

For two years the dualists have endeavored to meet all doubts, scruples and objections, with the theory of "*mixed*" chancre. Thus they are accustomed to call that ulcer, which, with a more abundant formation of pus, and a deeper softening of tissue, appears within a shorter space of time after the transfer than the hard (real) chancre, and on the other hand allows an immediate re-inoculation (within 1, 2, or 4 days), as in the case of the soft ulcer, but which gets a hard edge and base, and leads to the formation of a hard cicatrix, and finally exhibits, in succession, the affection of the glands, and other universal sequelæ of syphilis, as the one produced by the hard chancre. This "*mixed*" chancre,

therefore, is only *a variety of the hard*, which it resembles both in course and termination. It is produced either by inoculation from a similar "mixed" chancre, or by the simultaneous or subsequent transfer of the pus of a soft chancre upon a hard one already existing; which, in fact, happens when an individual can exhibit together with a soft chancre a hard one. Really, therefore, the mixed chancre follows the process of development, which was represented in the description of the primary ulcer as the gradual transition from the soft to the hard chancre. At first it *is*, afterwards it *appears to be* merely a soft chancre, and finally *it becomes* an indurated one, although for a satisfactory and infallible diagnosis the signs of the same are not sufficiently pronounced until the affection of the lymph-glands becomes apparent. *If pus alone is inoculated, a soft ulcer is the only result, but if at the same time blood is also transferred, then there results a transportation of true syphilis, chancre (hard), papules, &c.* This special interpretation of a process occurring frequently in life is of very great importance, especially in vaccinating with cow-pox from syphilitic persons. *If this sort of double transfer from a mixed chancre can be confirmed in all these disputed cases, then the last important objection against dualism falls to the ground*, because by it all processes, of however mysterious character, are capable of simple solution. *Unfortunately, however, the observations necessary to it are far from being satisfactorily determined.*

The supposition of a "mixed" chancre is a very ingenious and especially convenient idea for the theoretical explanation of the processes accompanying and following the transfer, but this latter is by no means more clearly or easily understood on that account. The great similarity of the symptoms of the mixed with those of the soft chancre, especially during the first stage of the ulcers, will not often allow again of a safe diagnosis. In such a case the observer not unfrequently finds it impossible to give an unquestionable judgment, and is again obliged to fall back upon *a continued observation of the process*, in order to be able finally to pronounce in regard to the diagnosis within a certain, definitely known time, otherwise than with more or less probability. Even the most expert observer among the dualists must acknowledge this fact of every day experience, and consequently admit that dualism has won indeed a very handy and convenient, but at the same time an ambiguous and double-cutting weapon in the idea of the "mixed" chancre, also that by it theory itself has lost in keenness and clearness, and practice in certainty and firmness.

All things considered, then, the dualists often, nay chiefly rely upon continued observation of the appearances in the beginning and course of syphilitic forms in order eventually to determine their division. They agree with us in this most important of all ground of classification, viz.: that *only those forms are to be looked upon as belonging to the general affection, in which the special disease*

of the lymph-glands shows and has shown itself in the way already earlier determined by us. So far could we also acquiesce without opposition in their explanation of the process by the theory of two contagions without really changing our present opinion and the division of forms founded therein. *It appears to us, however, that no especial advantage is to be gained for the inquirer or practising physician by joining either party in the controversy.* It is much more their duty to continue the observations in regard to the existence of the "mixed" chancre and the forms produced by it, and to learn to know better the relations of this mongrel form. Observations of this sort rank among those, which have been made on forms produced by the mixture of infective matter with the secretion of chancres, and lead to the conclusion that such mixtures *appear* to play the most essential part in mitigating the forms of the hard chancre, the papule and pustule, especially in women.* The inoculation with the infective matter of the soft chancre upon a papule produces an ulcer entirely like the mixed chancre, and on the other hand the scar of the mixed chancre often resembles the papule. On this account the identity of the processes was thought proved, which we have repeatedly, and especially lately (see *Mediz. Wochenschr.* 1860, No. 14), described circumstantially as the forms of development of the *general* affection, without any hypothetical inferences as to the relations of the contagious matters, a theory from which we expect nothing profitable either for student or practitioner, so long as the signs of their influence are not more definitely and unmistakably evident *from the very beginning*. Nevertheless we approve the conclusions, which the dualists have drawn from their theory, because *before it was announced* we had arrived at the very same in the course of continued observation upon patients. This applies especially to the origin, spread and return of contagious ulcers upon the same individual, the non-infection of the system resulting therefrom, and the treatment of the same. Moreover, we have seen the soft form run a distinct course in presence of the hard chancre, and never any inoculation from the latter *repeated* upon the same individual; from which we conclude that only soft, contagious ulcers are capable of development upon a person once affected with syphilis.

In regard to single conclusions, as, for instance, that of the inoculation of syphilis by vaccination, repeated observations are still necessary.† If, however, futher observation confirms the

* By this we refer to the fact that forms transmitted by those secondarily diseased, viz., by inheritance, are of a milder character.

† Dr. Viennois looks upon this manner of transporting syphilis by vaccination as entirely different (*De la Syphilis transm. p. la Vaccination, Arch. Gén. de la Méd.*, 1860, Jun.). Where merely lymph is taken from the syphilitic without any admixture of blood, syphilis is never produced upon the vaccinated; it is produced, however, only when in taking the matter there is an escape of blood, and this blood is inserted at the same time with the former. It is not the lymph, therefore, but only the blood of the bearer of the infective matter, just as in the mixed chancre it is not the pus but the blood which produces like results. This declaration, as simple and credible as it appears, needs longer continued and more searching investigation in consideration of the many facts it is intended to explain. Dr. Viennois has given, among others, the experiments on vaccination made in my clinique, although in a manner entirely wrong, inasmuch as he attributes to me the

statements and theory in regard to the mixed chancre, as well as the conclusions based upon it, there remain no longer any grounds of objection to the practical value of dualism.

From all that has been stated there result the following *conclusions*:—Transferences of such infective matters as are followed by *syphilitic* forms of disease, produce changes in the skin and mucous membrane, exudations, ulcers, which, *in the beginning*, are entirely alike, or so nearly resemble one another that they cannot be distinguished with certainty. *Only in the course* of their progress do the signs become more evident, by which a definite separation is denoted. The exudations and ulcers, which *rapidly* develope after the transference with soft base and edge, occasionally followed also by an acute inflammation of the lymph-glands, find their whole existence in this short affection of a portion of the skin and glandular system, without affecting the organism farther; *a purely local, contagious process* ("chancreoid"). Others, again, make their appearance at a *later* period after the transfer of the infective matter, exudations and infiltrations (ulcers and pustules), with indurated base and edge, and with similar infiltration of the neighboring and remote lymph-glands, and more gradual affections of other systems and organs; *a process only in the beginning purely local and contagious, but subsequently infectious* ("chancre").

The first constant and permanent appearance on which such a definite separation is founded, is the infiltration of the lymph-glands, beginning with those most nearly connected with the point of transfer (viz., the exudation or ulcer), and gradually proceeding to those farther and farthest remote. This affection distinguishes the infectious from the simple contagious forms; *for without such an affection of the glands general syphilis never exists*. The interval within which this progressive infiltration is developed extends at the utmost to the twelfth week, reckoned from the day of transfer, but in the great majority of cases this symptom begins by the third, and is at its full development by the fifth or sixth week. The infiltration is followed by *sharply defined* hyperæmiæ of the skin and mucous membrane and exudations, which are comprehended under the term "*secondary*" forms of disease ("general syphilis"). The theory of two groups of disease really differ-

observation that the vaccine virus is destroyed by the syphilitic virus; I have never given such an opinion. Mixtures of pus from *primary soft ulcers* with vaccine lymph have always produced, when inoculated upon those *already secondarily diseased*, appearances of the soft, primary chancre (pustules in 1, 2 or 4 days, and subsequent formation of ulcers); and as this runs the course of all other chancres, I have concluded that the result of such a mingling of vaccine lymph and pus from chancres is only chancre and never vaccination. It was, moreover, quite impossible to confound the process of the development of the pustule of chancre with that of a scropox, inasmuch as I referred especially to the time and manner of development, and the form and course of both processes. These experiments, moreover, were merely intended to show that with only a moderate degree of caution in vaccinating, the inoculation of a chancre cannot take place. Now Dr. Vienne is considering an entirely different question, viz., *the transference of syphilis from those secondarily diseased*, or in the sense of the dualists, *of true chancre-syphilis*, while I have been concerned about the transfer of the *primary*, simple, soft chancre upon persons affected with secondary syphilis. I have never inoculated non-syphilitic persons, and am acquainted, therefore, with no facts bearing upon this point. Whether in vaccination from those secondarily diseased the transfer is accomplished by the admixture of blood alone, and not by the pus also, is a question yet to be determined, and more numerous and reliable facts must be offered in its support before this view can be received as a guiding principle.

ent from one another is founded on clinical observation, and the recognition on the same ground of two entirely different infective matters follows from such observations, both by induction and analogy. The processes of these affections are certainly explained much more simply and conclusively by dualism than by any other theory.

Continued observations are, however, still necessary, in order to so settle the relations of the "mixed" chancre more thoroughly, and to determine its symptoms and characteristic features, that they may serve for the purposes of diagnosis and prognosis from the first. Until these signs, however, are discovered, and especially the conjectures in regard to supposed mixtures and mitigation of the infective matter are submitted to more searching scientific investigation, it is certainly judicious to hold to our old opinions and divisions into primary and secondary affections, especially as these *are in reality identical* with the terms "chaneroid" and "chancre."* The unreserved recognition of the duality of contagious matter does not in reality change at all the main groundwork of our diagnostics and prognostics, and quite as little, accordingly, the stand-points of our prophylactics and therapeutics. The treatment will continue to demand simply local remedies for purely local symptoms, while, on the other hand, appearances which point to a diseased condition of the blood, as well as of various organs and systems, must in part be left to their unalterable course, and in part be attacked with such remedies as appear most beneficial in individual cases. At all events it is in the mean time indicated, that we should reserve the term syphilis exclusively for the secondary and general affection; and until specialists do apply this accurate term *solely* to this group, nothing can be gained for science or mankind in general in the way of clearing up the confused notions in regard to syphilis. Our special essays, the language of physicians, and consequently that of our statute books, discriminate in this respect with so little accuracy, that the erroneous opinions and judgments in regard to syphilis among educated non-professional men, to say nothing of the public in general, should not seem strange to us.

The same ignorance and confusion of opinion explains why we have always sought and thought to have found a *single* remedy for syphilitic affections; why on the one side a single method of treatment is unreservedly spoken of, whereas only the known general laws of dietetic relations and of therapeutics, mechanical and chemical influences must determine the treatment in any particular case, either of gonorrhœa, or of the contagious or infectious forms, and only the more speedy, mild and sure single remedies and methods can

* As soon as the separation of groups into chaneroid and chancre as entirely distinct processes is accepted, we can only apply the expression "primary" and "secondary" form to each group with a *separate* signification, and primary or local is then synonymous with the affection at the point of transfer in both, while secondary, in the case of chaneroid, signifies again merely a *local*, in chancre however a *general* affection.

be recommended, especially in such cases. The most convenient for themselves, but at the same time the most destructive for science and humanity, has been the action of those who call gonorrhœa, the primary, secondary and pseudo-syphilitic forms, summarily and connectedly syphilis, ascribe the appearances to one cause, praise their own "specific" treatment and "their method," and because they have united so many things in the circle of their syphilis, claim to make as universal a cure.

Bibliographical Notices.

A Treatise on Diseases of the Joints. By RICHARD BARWELL, F.R.C.S., &c. &c. Illustrated by Engravings on Wood. Philadelphia. 8vo. Pp. 463.

THIS is the first American edition of this work, which was published less than a year ago, but we believe that it has already, in England, reached a second. The subject is one on which much has been written, but of which too much cannot be given us if it be good. The liability of the joints to specific disease early attracted the attention of surgeons, and more than three hundred years ago Budæus devoted an essay to it, contained in a small 12mo volume, but from his time down to what we may call our own, but little had been written that is worth preserving on our shelves, until Mr. Brodie, since the great Sir Benjamin, gave a series of papers in the *Medico-Chirurgical Transactions*, which, afterwards enlarged upon and re-written, and published in 1818 in an octavo volume, made his great work entitled "Pathological and Surgical Observations on the Diseases of the Joints." This, we believe, was the first monograph specially devoted to the subject. Since then—counting good, bad and indifferent—there has been no lack of such works, and yet the one before us occupies a place of its own. It does not, like Astley Cooper's book, consider injuries of the joints, or affections which are common to them and to the bones, but it confines itself closely to those diseases which are peculiar to the various structures entering into the construction of the joints, whether purely local or constitutional, or the result of an accidental diathesis.

The first chapter, of some twenty-five pages, is devoted to an admirable preliminary exposition of the physiological Anatomy of the Joints, and, though containing much that is trite, it is a very fitting commencement in the way of reminder to what follows. To give an idea of the scope of the whole work, we may enumerate the heading of the chapters in the order in which they occur:—Acute Synovitis; Acute Rheumatism; Pyarthrosis; Strumous Synovitis; Rheumatic Synovitis; Other Forms of Chronic Synovitis (Syphilitic, Gouty, Simple); Hydrarthrosis; Loose Cartilages in the Joints. These the author considers as beginning in the joint itself, and therefore forming a distinct group from those which follow, and which he considers as commencing in the bone, viz.: Acute Articular Osteitis; Strumous Articular Osteitis; Chronic Rheumatic Arthritis (Osteitis); Inflammation and Degeneration of Cartilages; Hip-joint Disease. The last four chapters, though left under the last head, cannot be considered as be-

longing to it, being given to Affections of Synovial Sheaths and Bursæ in the Neighborhood of Joints; Hysterical Pseudo Disease; Restoration of Mobility and Conformity to Crippled Joints, and the last on the Removal of Diseased Joints.

To notice a few of these chapters. The one on Acute Rheumatism we consider unsatisfactory. It is too long for the mere incidental mention of points of pathology that it gives, and yet very much too short as a treatise on the subject, and we would have preferred that so much space should not have been given to comment, or rather to criticism upon Dr. Todd's views.

The next chapter, on Pyarthrosis, is an interesting, though we are forced to confess an unsatisfactory one. It gives facts that, grouped with others and increased largely in number, may serve as a basis for explaining the morbid phenomenon in this hitherto very puzzling disease.

What we consider the most valuable parts of this work are the portions given to scrofulous diseases of the joints. These are largely illustrated with cases, and many still farther by wood cuts. The cases, too, are concisely stated, giving all that is necessary to enable the reader to form a clear idea of the condition of the patient, and very little of anything superfluous or confusing. To sum up this brief notice of Mr. Barwell's book, we find it patiently written and carefully put together, and, without presenting anything very new or original, yet furnishing us with much that is highly instructive, and which we could not get in such a form elsewhere.

Notes of the Surgery of the War in the Crimea, with Remarks on the Treatment of Gun-shot Wounds. By GEORGE H. B. McLEOD, M.D., F.R.C.P., formerly Surgeon to the Civil Hospital at Smyrna, and at the Camp before Sebastopol, &c. Philadelphia: J. B. Lippincott & Co. London: John Churchill. 1862. pp. 403, 12mo.

THIS timely publication is a record of the surgical experience in the war of the Crimea. It is comprehensive, as it commences with a sketch of the history of this hitherto mysterious peninsula, with its physical characters, climate, &c., and some account of the natives and their diseases. The author then goes on, after some account of the camp life of the army on the plateau before Sebastopol, which is suggestive and full of interest, and considers the subject of gun-shot wounds and their treatment, not omitting the somewhat hackneyed one of chloroform, of which, by the way, he speaks in terms of the most perfect confidence, as do military surgeons generally. Only one unequivocal case of death occurred from its use in the English army. With reference to its employment in surgical operations, he makes the following excellent remarks:—

"I think I have seen enough of its effects to conclude that if its action is not carried beyond the stage necessary for the operation, it does not increase the depression which results from injury, but, on the contrary, supports the strength under operation." The objections made to its use seem to have been restricted to two classes of cases, viz.: "trivial accidents, in which it was thought unnecessary to run the risk of giving it, and amputations of the thigh, in which a fatal accession of shock was feared;" objections which our author regards as of little practical importance.

An Appendix is added, which contains much valuable information in the form of statistical tables, showing the mortality following the greater amputations for gun-shot wounds and accidents, together with a *résumé* of M. Scrive's work on the French losses in the Crimea, and of the report of the British government on the surgery of the war in the Crimea. The book is well printed, and will be a useful addition to the literature of military surgery.

Epileptic and other Convulsive Affections of the Nervous System, their Pathology and Treatment. By CHARLES BLAND RADCLYFFE, M.D., Fellow of the Royal College of Physicians; Physician to, and Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, &c. Third Edition, incorporating the Gullstonian Lectures for 1860. London: John Churchill. 1861. 12mo. Pp. 312.

THE object of this treatise is to show, that muscular contraction, so far from being called into action by an exercise of the nervous power, is in reality the result of the temporary withdrawal or interruption of that power; that the muscular system is not excited or stimulated into action, but is held in a state of polarity during relaxation, "and that contraction is nothing more than the necessary result of the muscle being liberated from this state and left to the operation of the attractive force which is inherent in the physical constitution of the muscular molecules." Thus ordinary muscular contraction differs in nothing except in degree from the stiffness of *rigor mortis*, the latter being only the extreme degree of the phenomenon, and being most marked on account of the entire withdrawal of the controlling nervous power. The author's theory is ingeniously supported by reference to numerous experiments of modern physiologists, and physiological electricians, and the argument is still further sustained in his application of it to the various phases of convulsive diseases. The work bears on every page the marks of the studious thought of the author, and is worthy of the most careful consideration.

Lectures on Materia Medica and Therapeutics, delivered in the College of Physicians and Surgeons of the University of the State of New York. By JOHN B. BECK, M.D., late Professor of Materia Medica and Medical Jurisprudence. Prepared for the Press by his friend C. R. Gilman, M.D., Professor of Obstetrics, &c., in the College of Physicians and Surgeons, N. Y. Third Edition. New York: Samuel S. & William Wood. 1861.

THIS standard work is too well known to the medical profession to require an extended notice from us. As a text-book, its value is universally acknowledged. It is to be regretted, however, that the editor has not thought it necessary to make larger additions in the present edition than he has, to bring the work up to the standard of medical requirements at the present day. There is such a thing as being too conservative, and the fear of embodying in a permanent work remedies of ephemeral popularity may exclude some of real value. We regard it as highly important for the young practitioner to be prepared to employ the newest forms of remedies already in repute, as many of them are more agreeable in their administration than the crude drugs or the old familiar preparations of them. The fluid extracts, for instance, of which so many are in use at the present time, we do not

see any allusion to. The great power of the *veratrum viride* as a sedative to the circulation, and that of the oxide of zinc in checking profuse perspirations, we find are not spoken of in treating of these drugs. Chlorate of potash, which is so largely employed at the present day, and which comes as near being a specific as any remedy in the pharmacopœia, and is certainly a most useful one, is not even mentioned. In treating of the action of poisons, such as arsenic, strychnine, corrosive sublimate, the narcotics, &c., from which accidents are liable to arise by being taken in an over-dose, or which may be given with malicious intent, we think it would have been well to have appended an account of the antidotes for these agents; but we have not found this in a single instance. In the preface to the second edition, we see that the editor thought it necessary to bring up the book to the state of knowledge on the subject of the *Materia Medica* at the time it was published. In the present edition he does not seem to have thought it important to make similar changes and additions. We regret this, as it detracts very much from the present value of a most excellent work. In future editions, we hope a different course may be pursued.

Lectures on the Diseases of Women. By CHARLES WEST, M.D., Fellow of the Royal College of Physicians, Examiner in Midwifery at the Royal College of Surgeons of England, Physician Accoucheur to St. Bartholomew's Hospital, &c. &c. Second American, from the second London edition. Philadelphia: Blanchard & Lea. 8vo. Pp. 483.

THE medical public will be glad to hear of a new edition of this standard work on diseases of women, a treatise already well known on both sides of the Atlantic. Although the work is comprehensive, diseases of a purely surgical nature are not comprised within its scope. The subjects treated of will be found full of practical wisdom, the result of large experience, and of course cannot fail to meet a want which no other similar treatise so well supplies. The book is printed in the usual good taste of all that issues from the press of Blanchard & Lea.

On the Use of Anæsthetics in Midwifery. By B. FORDYCE BARKER, M.D., Professor of Midwifery and Diseases of Women in the Bellevue Hospital Medical College, and Obstetric Physician to Bellevue Hospital. New York: S. S. & W. Wood. 1861.

IN this short treatise on the use of Anæsthetics in Midwifery, the author arrives at the following conclusions, which he offers as a basis for discussion at the New York Academy of Medicine, before which body the paper was read:—

"1st. Anæsthetic aid is of the greatest value in the obstetric art, and chloroform is generally the preferable agent for this purpose.

"2d. It exerts no injurious effect, when properly administered, upon the health of either the mother or the child

"3d. It is perfectly justifiable to use chloroform in natural labor, solely for the purpose of relieving pain.

"4th. It is especially useful in calming the extreme agitation and mental excitement which labor often produces in very nervous women.

"5th. It should be administered in those cases of natural labor, where the progress is much suspended or much retarded by the pain oc-

casioned by previous diseases, or such as may supervene during labor, and in those cases where the irregular and partial contractions occasion intense and almost constant pain, but have no effect to advance the labor.

"6th. It is of great service in spasmodic contraction and rigidity of the cervix uteri, in tetanic rigidity of the perinæum, in certain forms of puerperal convulsions, and in the various obstetrical operations."

Army Medical Intelligence.

THE following are extracts from letters received at the Surgeon-General's office, within the past few days, from Massachusetts surgeons at the seat of war:—

To the Surgeon-General. { HEAD QUARTERS WADSWORTH'S BRIGADE,
UPTON'S HILL, VA., Dec. 17th, 1861.

DEAR SIR,—Three months experience in the 9th Reg't, Mass. Vols., is somewhat remarkable, on account of the absence of mortality, the small amount of severe sickness, and the kindly character and fortunate results of the wounds received. From June 11th to September 11th there was no death in the regiment, with the exception of two cases of accidental drowning. In July and the first part of August, diarrhœa and dysentery, in a mild form, were the prevailing diseases. Subsequently, the regiment encamped in a forest, near Arlington, Va., where was a large accumulation of decayed vegetation, which, being disturbed, undoubtedly gave to the atmosphere a malarial influence; for sickness of a malarial character soon manifested itself, and became the predominating trouble. Sometimes distinct chills would usher in the sickness, but more frequently complaints were made of general malaise, pain in the bones, furred tongue, and more or less of a cold stage. These symptoms were generally attended by more or less bilious derangement. Mass. hydrargyri, and black draught, followed by sulphate of quinine, were the usual prescriptions, and the trouble would ordinarily pass away in a few days. Surgeon Tripler, Medical Director of the Army of the Potomac, told me, soon after our tents were pitched, that he regarded a forest next to a swamp for producing malaria.

James Malcom was shot from a wood, while on drill. The ball entered the heel just below the external malleolus, passed around the os calcis, and was felt in the bottom of the foot, at which place a counter opening was made and the ball extracted. After a somewhat protracted lameness he walks as well as ever. Edward Collins, at the same time and place, had a bullet pass through the calf of the leg. Recovery complete.

Lieut. Hanly had his thigh transfixd with a sabre. The whole tract of the wound, six or seven inches in length, healed by first intention.

A soldier, while on picket duty near Upton's Hill, was shot in the right breast, the ball entering near the nipple, and following the ribs, took its exit about six inches from the point of entrance, without entering the cavity of the thorax. Recovery complete. At the same time, his companion in arms was shot in the head, tearing his hat badly, but only slightly abrading the scalp. Another soldier was shot in

the arm, near Ball's cross roads, producing compound comminuted fracture of the humerus. The recovery is good. At the same time and place, his fellow received a ball directly over the spinous process of the tenth dorsal vertebra, which did not enter the body, but was deflected, leaving a sloughing sore, and evidence of shock to the spinal marrow. One of the waggoners was accidentally shot by another. The ball fractured the inferior maxillary bone and divided the internal carotid artery. Assistant Surgeon P. A. O'Connell was near, and controlled the threatening hæmorrhage immediately, and, with the assistance of one of the surgeons of the 2d New Hampshire regiment, tied the common carotid. The case has done well.

Respectfully yours,

PETER PINEO,
Brigade Surgeon.

To the Surgeon General.

{ CAMP NEAR MUDDY BRANCH,
Dec. 20th, 1861.

DEAR SIR,—Since our removal to this camp we have taken possession of a house for hospital purposes, about one mile from camp. This house has been used for this purpose during the past summer by Gen. Banks's division, and recently evacuated on their removal to Frederick. They left with us two patients, one wounded in the leg, the other with typhoid fever, both now doing well.

We have discharged some twenty men recently by reason of disability, leaving us in better effective condition; but we have yet a few more whom we shall be obliged to discharge for the same cause. Very few of these men were suffering from disease contracted since entering service, but were enlisted by recruiting agents without sufficient and thorough examination.

Eighteen are now in hospital. One case of typhoid fever, and one of phthisis, besides the two from New York, mentioned above.

Our Regiment received a welcome accession, a few days since, by the arrival of Capt. Devereux with 120 men. These are mostly fine looking men. A more thorough examination, however, would have caused the rejection of two or three who are physically disqualified.

The 19th Regiment probably occupies more *territory* than any other in the army of the Potomac. We have 12 miles of the river to picket, besides "occupying" Rockville with a sufficient force, having a guard at Darnestown, pickets at important points on the principal roads, and a detail of 160 men engaged in building block-houses at various points on the river. These buildings are not merely for shelter, but are built for purposes of defence, and are calculated to stand a siege. Much labor and skill are required in their construction.

We are yet living in our old tents, though the ingenuity of the men has been exercised in making such improvements, that they are now better sheltered than before. Some companies are living in log huts of their own construction.

Dr. Willard, I am glad to say, has returned to the regiment, and we are now living together under canvass, and expect to continue so to live during the winter.

With much respect, and appreciation of your efforts in forwarding the interests of the medical department of our Massachusetts regiments, I am, with Dr. Willard, who sends his regards,

Yours very respectfully,

I. FRANKLIN DYER,
Surgeon 19th Mass. Vols.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 2, 1862.

IN the bill recently introduced into Congress, touching the re-organization of the medical corps of the army, such changes and modifications are proposed as will meet with the general approval of the profession. The position and relative rank of our army medical officers have never been what the character of the service demands, and no time could have been more fitting than the present for placing this branch of the public service on a footing more consonant with its own dignity, and which will give it an efficiency it has not hitherto possessed.

A feature of the bill that we would particularly mention here, is that which relates to the organization of a sanitary body, which is to have supervision of all measures sanitary and hygienic. What has hitherto devolved upon a commission barely recognized by the government, whose members are without rank, and whose compensation is not at all commensurate with the importance of the services rendered, it is proposed shall be assigned to a corps of medical officers appointed from the army by the President, and who shall have a rank befitting gentlemen of scientific attainments in the regular service of the government. The bill provides that the chief of this department shall be styled the Sanitary Inspector General, with the rank of Colonel of Cavalry, who, under the Director General, shall have supervision of all that pertains to the sanitary condition of the army. Acting under this officer, provision is also made for six Sanitary Inspectors, with the rank of Lieutenant Colonel of Cavalry; all to be selected from the army medical corps. Under such an organization, it is obvious that a degree of efficiency would be attained, impossible under the present arrangement. In the first place, there seems to be no good reason why everything relating to the health of the army should not be entrusted to competent medical officers, those who by their education and training are able promptly to consider and decide all matters which come legitimately before them. Without intending the slightest reflection upon those non-professional gentlemen who constitute so active a portion of our present commission, we are nevertheless convinced that a more efficient system is possible, and one in which there would be less liability to those misunderstandings and jealousies not unlikely to arise between military and civil officers whose duties lie in a similar direction. A regimental surgeon might readily be supposed to regard as unwarrantable any interference with his official duties, unless it should come in so unquestionable a shape as to give it a show at least of professional weight and authority. On the other hand, to obey the command of a superior, would be a duty which every military officer at once recognizes. And here, in the second place, appears the necessity of conferring such rank on the sanitary inspectors as shall be commensurate with their responsibilities and the relations they must necessarily sustain to other medical officers. The importance of this has not been overlooked in the draft of the present bill, which,

should it pass, will at once secure to our army medical department a position and basis honorable alike to the profession and to the government.

WE regret to observe that our intelligent and esteemed cotemporary, the *British American Medical Journal*, has re-printed, with some expressions of belief in the statement, the newspaper story, based on the authority of a gossiping letter writer, that the notorious Tumblety has obtained a medical appointment on the Staff of Gen. McClellan! It is somewhat trying to our patience to have to refer to such an absurdity, and it is not a little annoying that so well-informed a journal should be willing to accept it as possible. We will state, however, for its enlightenment, that in the United States service there is no such office known as staff surgeon, and consequently no medical man could receive such an appointment. Secondly, no appointment of assistant surgeon in the army can be made without subjecting the candidate to a most rigid examination; and no appointment of surgeon is made without the candidate has served five years as assistant surgeon. Our cotemporary will find full information on the subject of such appointments in the U. S. Army and Navy, in Professor Hamilton's "Treatise on Military Surgery," a work recently noticed in its pages, in the Appendix, on pages 220 and 222. Neither in the volunteer department of the army could such an appointment have been made. The gentlemen of the medical staff of the volunteers are, as a body, highly competent for the offices they fill. Many of them have been for years respectable practitioners, and none have received their commissions without passing a thorough examination. Among the surgeons to the three months' troops there were doubtless a few unworthy persons, but the exigency of the moment did not admit of the careful supervision which has since been exercised in these appointments. The community is feelingly alive to the importance of this matter, and no incompetent person would for a moment be allowed to retain so responsible a place.

VERMONT ASYLUM FOR THE INSANE.—From the twenty-fifth annual report of the officers of this institution, located at Brattleboro', we learn that it is in a highly satisfactory condition. The health of the inmates appears to have been more than ordinarily good, and the recoveries have been numerous. From the report of the superintendent, it appears that 576 patients enjoyed the benefits of this institution the past year. There were 436 remaining at the commencement of the year; 140 have been admitted; 138 have been discharged; and 438 now remain, of whom 230 are males and 208 are females. Of those discharged, 56 recovered. Since the opening of the Asylum, 3,308 have been admitted, and 2,870 have been discharged. Of the 2,870 discharged, 1,547 have recovered.

The remarks appended to Dr. Rockwell's report are brief and pertinent, and confirm the statement of the Trustees in their report, that "success has attended the operations of the institution."

CÆSAREAN OPERATION.—Professor Gogefroy describes a successful case of Cæsarean operation lately performed by him. He has operated four times, and this is his first successful case. He attributes the recovery to the early period of the operation. The advantages of ope-

rating early—if possible, before the rupture of the membranes—are great. The incision into the uterus is, in such a case, much diminished by the contraction of the uterus; in this case, for example, it contracted from about ten to five *centimètres*. Besides injury to the womb and bladder, the consequence of prolonged labor is thereby prevented. The practice, the professor adds, of three nations illustrates this point. The Germans, who operate early, save many females; the French, who delay, save fewer patients; and the English, who only operate *in extremis*, lose almost all their patients.—*British Med. Journal*.

PODOPHYLLIN AS A SUBSTITUTE FOR MERCURY.—This article, the active principle of the *podophyllum peltatum*, *May apple*, or *mandrake*, is just now coming into notice among our transatlantic neighbors, as a substitute for mercury. The suggestion of its use came, however, it is said, from an American oculist, who, in 1854, when about to leave the English shores, placed his daughters under the care of a celebrated physician, and gave the latter a bottle of this remedy, which he requested should be prescribed instead of mercury, whenever a mercurial was required in their case. Following this suggestion, the physician has used it continually since, and thus speaks of its administration and effects. If given in quarter-grain doses, twice a day, combined with opium, to check its aperient action, and continued for a few days, profuse salivation will occur, with, however, [no?], fetor of breath, or ulceration of gums. This, however, rapidly subsides on discontinuing the medicine. It is very slow in its action, often ten or twelve hours, but in the following combination induces one or two copious stools, attended with the sensation of the bowels having been thoroughly emptied, and without tenesmus:—**R.** Podophyllin, gr. j.; pulv. rhei, gr. ix.; pulv. capsici, gr. ij. **M.** Ft. pil. iij. **S.** one or two. This for an ordinary aperient. Its action on the liver, if given in small doses, may be as much relied on as mercury, while the effects upon the system generally are, by far, less injurious.—*Medical and Surgical Reporter*.

VACCINATION OF NEW-BORN INFANTS.—M. E. Barthez read at a recent meeting of the Société Médicale des Hôpitaux de Paris, a memoir on the vaccination of new-born children. The question to be discussed was, *Is it proper to vaccinate infants a few days after birth?* The question is not new. It is one of the first which must have been asked in the practice of vaccination. It is, in fact, considered at length in the classical works which treat of that subject, and particularly in the works of M. Bousquet. According to this writer, one could not vaccinate too soon. However, this rule with him is obligatory only during an epidemic. Beyond this, says he, there is no inconvenience to postpone the vaccination until the second or third month, statistics showing that the smallpox is very rare before the sixth month. He considers three months as the best time for vaccination. It is the practice most generally adopted. However, the peculiar conditions in which children born in hospitals are placed, their being exposed more than anywhere else to contract variola, has induced some physicians to modify in this respect the general practice, and to vaccinate these children the first few days after birth. These early vaccinations have produced in some children accidents more or less serious, and in some cases even fatal.—*American Medical Times*.

GUN-SHOT WOUNDS PRODUCED DURING THE LOADING OF ARTILLERY.—Dr. Cortese relates (*Omodei Annali Univ. di Med.*) five cases, and gives the following summary of his observation. No other blow of a projectile imparts so great an amount of commotion to the entire limb, and the surgeon is therefore compelled to direct his attention to the whole extremity, whatever amount of lesion may be manifest in the hand. A neglect in this regard may lead to gangrene gaining possession of a large portion of the limb, or to a generalized suppuration, while a diminished power of reaction in the injured parts may give rise to purulent infection, or render amputation useless. When the hand is severely torn, its disarticulation and even the amputation of the forearm is insufficient to secure recovery, because the tissues are more or less destroyed in their intimate structure in consequence of concussion. In such cases, the arm should be amputated. The sooner amputation is performed, the greater is the probability of a favorable result. The rapid and very extensive tumefaction of the limb constitutes a sufficiently certain criterion of the severity of the derangements which are propagated along its whole extent. When no fractures are detected in the diaphysis of the bone, some lesion in the ulnar articulation must be suspected. When the lesion does not seem severe enough to call at once for amputation, we must be prepared for secondary occurrences which will unfit the limb for its functions. Still, conservative treatment should in such cases be attempted.—*British and Foreign Medico-Chirurgical Review.*

DR. P. RANDALL, of Catlettsburgh, Greenup Co., Ky., is Surgeon, and Dr. Daniel Mayer, of Pomroy, Ohio, Assistant Surgeon, of the 5th Virginia Regiment Volunteers, U. S. Army, Col. John L. Zeigler commanding. The regiment is now stationed at Parkersburg, Wood Co., Virg., where it will probably remain till spring.

IN the hospitals of Washington, Alexandria and Georgetown, on the 13th ult., there were 1,153 sick and wounded soldiers.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 28th, 1861.

DEATHS.

	Males.	Females.	Total.
Deaths during the week,	46	36	82
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	41.6	35.1	76.7
Average corrected to increased population, . . . . .	..	..	85.55
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
16	0	1	5	4	0	0	1	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Dec. 14th.

Mean height of Barometer,	30 064	Highest point of Thermometer,	52 0
Highest point of Barometer,	30 354	Lowest point of Thermometer,	8 0
Lowest point of Barometer,	29 620	General direction of Wind,	W.
Mean Temperature,	35 5	Am't of Rain (inches),	0

MARRIED.—At West Cambridge, Dec. 25th, J. W. Willis, M.D., of Waltham, to Susan E. Rice, of West Cambridge.—In New Haven, Conn., 25th ult., Dr. J. W. Hyde, of Greenwich, to Mary Elizabeth Richardson.

DIED.—In Charleston, S. C., Nov. 30th, Stephen Griswold, M.D. (late Assistant Surgeon of the Thirty-eighth Regiment N. Y. State Militia), in the 38th year of his age, after a short illness from typhoid fever.

DEATHS IN BOSTON for the week ending Saturday noon, December 28th, 82. Males, 46—Females, 36.—Accident, 1—apoplexy, 2—congestion of the brain, 2—disease of the brain, 3—bronchitis, 2—consumption, 16—convulsions, 4—croup, 1—debility, 1—dropsy, 4—dropsy of the brain, 3—drowned, 1—epilepsy, 1—infantile diseases, 2—intermittent fever, 1—scarlet fever, 5—typhoid fever, 1—hemorrhage, 2—disease of the heart, 4—disease of the liver, 1—inflammation of the lungs, 4—marasmus, 3—old age, 1—paralysis, 1—pleurisy, 1—premature birth, 2—disease of the prostate gland, 1—puerperal disease, 1—sore throat, 2—suicide, 1—unknown, 3—whooping cough, 5.

Under 5 years of age, 30—between 5 and 20 years, 7—between 20 and 40 years, 22—between 40 and 60 years, 11—above 60 years, 12. Born in the United States, 52—Ireland, 24—other places, 6.

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THURSDAY, JANUARY 9, 1862.

No. 23.

ASTHENOPIA, ITS CAUSE AND TREATMENT.

[Principally made up from articles published by Professor Donders, and Lectures delivered by Professor von Graefe on the subject. Communicated for the Boston Medical and Surgical Journal.]

BY HASKET DERBY, M.D., BOSTON.

THE attention of oculists, as well as that of general practitioners, has long been attracted to a peculiar form of disease, the symptoms of which are exceedingly characteristic. The eye presents a perfectly normal appearance; its movements are unrestricted; convergence of the axes of vision takes place without difficulty; the perception of objects is generally as perfect as ever; and yet, in spite of all this, reading, writing, or any other employment requiring near objects to be viewed, induces fatigue; objects become confused and indistinct, and a sense of tension is felt above the eyes. Such a height does this reach, that temporary relinquishment of the employment is rendered necessary. After resting a few moments, vision becomes again distinct, but the same symptoms develop themselves again sooner than before. The amount of labor that can be performed is directly proportional to the amount of rest that has been taken.

As long as the eyes are not employed on near objects vision appears normal, and no disagreeable sensation is experienced. No sooner, however, does the patient, regardless of what he has experienced, attempt to continue his previous occupation, than the symptoms become more and more pronounced; the pain in the forehead grows more intense; the eyes become red, and tears flow freely; yet the eyes themselves are rarely painful. As this condition becomes more aggravated, the patient is obliged to close his eyes, and pass his hand over his forehead. Has too persistent an effort been made, all work on near objects must be given up for a considerable period.

This condition was at first regarded as a species of amblyopia, and was called *hebetudo visus*, *amblyopie presbytique*, or *amblyopie par presbytie*. Its real nature remained, however, a mystery.

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Mackenzie came nearer the truth in stating that the seat of this disease was probably to be looked for in the organ or organs of the accommodation, that is, the power possessed by the eye of adapting itself to different distances. The majority of oculists signified their approval of this theory, but remained in ignorance of the true nature of the disease. They remarked, it is true, that the accommodation became quickly fatigued, and that convex glasses (the use of which Mackenzie discouraged) alleviated the symptoms partially or entirely; the idea, however, never occurred to them, that an abnormal structure of the eye lay at the root of the whole matter.

To form a just conception of this, at first sight, somewhat startling proposition, a brief *resumé* of the more recent views concerning the accommodation of the eye, and its anomalies of refraction, will not be out of place.

Till within a very few years the most dissimilar doctrines have prevailed as to the nature of the power possessed by the eye of so altering its state of refraction as to bring rays, coming from different distances, to a union on the retina. This has been successively supposed to reside in the cornea, the iris, the lens, the "layers of the vitreous," and the recti and oblique muscles. Myopia and presbyopia were supposed to be two opposite conditions; the one compelling an object to be held nearer to, the other farther from the eye, for the purpose of distinct vision.

The results of modern investigation show—

That the agent in the act of accommodation is the crystalline lens, which varies its convexity without changing its position. That where objects are so distant from the eye that the rays coming from them may practically be regarded as parallel, such rays are brought to a focus on the retina without any accommodative effort; and that the nearer the object approaches the eye, the greater will be the strain on the accommodation. And while the far point, or limit of distinct vision of a normal eye, may thus be said to lie in infinity (rays coming from an infinite distance being parallel), the near point of such eye—i. e. the nearest point for which it can accommodate—progressively recedes with advancing age; constituting presbyopia when it has increased its distance from the eye so much as to cause inconvenience.

Thus in an ideal eye the farthest point of vision should lie in infinity; that is, the eye, when adapted for its farthest point, should possess the power of bringing parallel rays to a union on the retina, without accommodative effort.

Relatively few eyes, however, correspond to this ideal. Parallel rays, entering some eyes adapted for their farthest point, are brought to a union *before* the retina, so that only *divergent* rays, proceeding from objects relatively near, can form perfect images on its surface. And parallel rays, entering other eyes whose accommodative power is similarly relaxed, find their point of union

behind the retina, to form perfect pictures on which, the rays should enter the eye *converging*.

Both of these conditions depend on a defect in structure of the eye concerned. The first defines myopia; for the second, Donders has proposed the name of hypermetropia; and presbyopia may exist in connection with either. In the first case the far point lies *this side of*, in the second *beyond* infinity. The first requires a concave, the second a convex glass in order to see distinctly in the distance. It is with the last, or hypermetropia, that we have to do.

Although recognized as early as 1853 as an abnormal condition of the eye, and a year or two later described with much ability by Stellwag von Carion (*Ophthalmologie*, vol. ii., p. 371), Donders was the first to point out the fact, that the occurrence of hypermetropia in a moderate degree* was far more common than was generally supposed; and that, as such, it lay at the bottom of a difficulty, which, under the various names of asthenopia, kopiopia, lassitude oculaire, amblyopia, presbytique, weaksightedness, morbid sensibility of the retina, &c. &c., had played a rôle of no little importance among the comparatively less understood diseases of the eye. In 1858 he first enunciated the doctrine, that the great majority of cases of asthenopia would be found to be associated with this abnormal structure of the eye. And in 1860 he so far extended the application of the rule, as to almost deny the possibility of the one condition existing independently of the other; stating that in no one of the last hundred cases examined by him had hypermetropia, to a marked degree, been absent. And the researches of others in this field have confirmed its presence in at least twenty-nine out of every thirty cases.

Rays proceed from all objects in nature divergent, or at the most parallel, and this only from objects at an infinite distance. The eye is consequently not called upon to adapt itself for the reception of convergent rays. It fulfils all necessities when it brings tolerably divergent rays to union on its retina; and, besides this, can sufficiently relax its accommodation for the reception of parallel rays; if it can do more, it has overstepped its office, the eye possesses a useless power, and one that materially interferes with its original usefulness.

Want of space renders it impossible to rehearse fully the reasoning by which Donders accounts for the existence of asthenopia in a hypermetropic eye. It is well known that the amount of accommodation we can bring to bear on an object at any given distance depends, in great measure, on the angle at which it is ne-

* The degree of the hypermetropia or myopia present in a given case is expressed by the focal distance of the convex or concave lens, which reduces the eye thus affected to a normal eye; viz., in hypermetropia the strongest convex, and in myopia the weakest concave glass, through which the patient sees distinctly in the distance. The degree of presbyopia is expressed by that convex lens which brings the near point of the eye back to eight inches, and which may easily be computed. Thus, supposing the near point of the eye to have advanced to 12 inches then the presbyopia = $\frac{1}{12} - \frac{1}{8} = -\frac{1}{24}$; and a positive glass of 24 inches focus brings the near point back to about 8 inches.

cessary to converge the axes of vision, in order to regard that object; the rule being, that the two go, to a great extent, hand in hand; and that, the greater the convergence, the more accommodation we can bring into play. We distinguish between *absolute* and *relative* accommodation; *absolute* being the whole amount of accommodation that exists, under the most favorable circumstances, the near point being taken at the greatest possible convergence of the visual axes, and the far point at their nearest approach to parallelism; while *relative* accommodation is the amount that can be made use of at any one fixed convergence of the axes of vision. Now it is found by experiment and observation, that where normal eyes need, for a given convergence, half their *relative* accommodation, hypermetropic eyes are obliged to use seven-eighths, or even more, which greatly fatigues them; and that the cause of the asthenopic symptoms is thus simply a want of proportion between the convergence of the axes of vision and the amount of relative accommodation that is obliged to be brought into play.

Treatment.—In former times, when hypermetropia was either unknown or misconstrued, positive glasses were interdicted for distant objects, and only those very weak were used for the near ones. The relief thus afforded would naturally be exceedingly slight. But now that the nature of the difficulty is completely understood, we have only to bear in mind the object to be effected, viz., the relieving the accommodation of an unnatural strain, and the restoring of the proper harmony between it and the convergence of the axes of vision. The treatment thus becomes simple, and may be explained in a few words. We give the patient the glass that expresses the degree of his hypermetropia, for constant use. The strongest convex lens with which he sees distinctly in the distance reduces his eye to one which needs no glass for either near or remote objects; and it is gratifying to observe the complete alleviation of the asthenopic symptoms, which almost always follows its judicious employment. Should, however, the patient possess only a limited power of accommodation, a stronger lens will be needed for work on near objects; and a simple mathematical process enables us to compute the glass with which he shall be able to work in a given distance, and in so doing bring into play not more than one third of the whole amount of his accommodation.

NOTE.—Much difficulty is occasionally experienced in determining the strongest glass with which the hypermetrop can see in the distance. These patients are so accustomed to using a portion of their accommodation when looking at distant objects, that they continue so to do, even when the necessity is obviated by glasses being held before their eyes. In such cases a solution of atropine, sufficiently strong to paralyze the accommodation, must be instilled into the eye before the trial is made. Donders relates cases where, at first, a convex lens of 24 inches focus was preferred to one of

20, by the patient, for regarding distant objects; where one of 16 and one of 12 permitted but imperfect vision, but where, after the employment of atropine, one of 6 inches focus was found to be the glass required.

January 2d, 1862.

DR. COALE'S ESSAY ON ANEURISM.

(TREATMENT.—Continued from page 410.)

Galvano-Puncture.—There was some doubt in our mind as to whether we should not put galvano-puncture among those remedies for aneurism which had been tried and found wanting. Its failures, it is true, have been many and great, but its successes have been equally marked and remarkable, and we feel, too, that improvements may be introduced into the way of applying it, which will do away with some of the objections to its use.

Electricity had been applied for the cure of aneurism very many years ago, by Liston and Phillips. We have not been able to find their original communications upon the subject, but it will suffice to say, their experiments were wholly unsuccessful, and the project was abandoned entirely by them.

Brande had shown that in any of its solutions subjected to the galvanic current, albumen came to the positive pole in a coagulated state. Velpeau, acting upon this, introduced needles which formed the poles of a galvanic battery into aneurisms artificially produced, and into the bloodvessels of rabbits. He found the almost invariable result was, to plug up the vessel, or to solidify the collection of blood.

Petrequin, of Lyons, applied the process to the human subject, and in 1846 gave his first paper upon the subject to the world.* He used two, and sometimes four, needles, introduced from opposite sides of the tumor, and attached respectively to opposite poles of a galvanic battery. This battery was composed of a series of plates, on one occasion twenty-two pairs being used, each plate four inches in diameter.

M. Petrequin published a series of papers on this subject, exhibiting the progress and result of his investigations, in the *Archives Médicales*, and the *Bulletin de Thérapeutique*, from the year 1846 to 1849. To these we would refer the reader for details which we do not think necessary to give here. The results we will strive to exhibit fairly. Several cases in which any other course would have been almost wholly impracticable, have been completely cured by galvano-puncture. One, reported by M. Abeille, is very satisfactory. It was a subclavian aneurism, in a woman aged 65. After the application of the needles for the space of thirty-

* Archives Générales, September, 1846.

seven minutes, the tumor was found to be hard, resistant, and destitute of pulsation. The operation, however, was attended with horrible suffering, which even chloroform did not control. The tumor entirely disappeared in thirty-seven days, and the cure remained perfect at the end of three years—the date of the report.

M. Gimelle made a report to the Academy of Medicine upon this case, in which he reviewed the various cases in which galvanism had been employed, and quotes several that were unsuccessful in M. Petrequin's hands, whilst with other surgeons violent inflammation, suppuration and gangrene occurred. Velpeau related that he had lost a case from inflammation of the sac in popliteal aneurism, and yet considered it valuable as a *dernier ressort* in cases like the above, where ligature was inadmissible. And this seems to have been the view of Robert, Laugier and several others who had tried it with more or less ill success.

The next notice of importance we had of galvano-puncture in aneurism is in the third volume of the *Mémoires de la Société de Chirurgie de Paris*, 1852. This was likewise a report made to the Society by M. Boinet, upon a case offered by M. Vial, who had operated successfully, and stated that he believed if the operation had not met with the success it deserved, it arose from the pain, inflammation, suppuration, gangrene, and which he considers due entirely to a faulty mode of operating. The alterations he proposes are, that the galvanism should be used for a shorter time, but oftener. The case he gives in illustration was one of varicose aneurism from puncturing the brachial artery in bleeding. The needles were applied for seven minutes at a time on four different days, but the pain was so great that after the last time the patient refused to submit to it again. Compression was then applied to prevent relapse, and the cure confirmed. M. Boinet in his summary upon M. Vial's case is by no means favorable to the operation. He rehearses Petrequin's own cases in support of this view. The first was for aneurism of the ophthalmic artery, for which the carotid had been tied in vain. Galvanism was applied July 19th. Pain and ecchymosis followed, the pulsation and bruit continued, and on August 14th a violent fever put an end to the life of the patient. We merely comment that we see no connection between the remedy and fever.

The next case was aneurism of the temporal artery. Application was made for ten minutes, and two days afterwards the tumor had disappeared.

In the third case, four needles were used; the tumor became hard, and pulsation ceased in a quarter of an hour. Afterwards, the sac become inflamed, and much foetid pus was discharged from the apertures, caused by the falling off of the eschars produced by the needles. The tumor disappeared twenty days after the application, leaving the brachial artery pulsating naturally.

The fourth case cited was popliteal aneurism. Cold and com-

pression had already been tried. Four needles were applied, and the tumor speedily solidified.

The fifth was a case of brachial aneurism after bleeding, and the cure complete. The sixth was of the same kind; compression had been used, leaving the skin thin, red and adherent. Forty days after the application, there was normal pulsation of the artery.

M. Boinet's summary from the 32 cases is as follows:—21 unsuccessful; 10 successful; 1 not known, and he thinks from that unsuccessful. Three cases have been published since these, one of which was successful, but accompanied by serious symptoms; and in the other two, such alarming effects were produced that the ligature was resorted to without delay.

In England, the use of galvano-puncture in aneurism does not seem ever to have had much favor, and the English journals are very destitute of anything that would throw light upon the subject. One interesting and successful case is given by Mr. Edmund M. Eyre, occurring in India. It was an aneurism of the external iliac, the size of a fowl's egg. Signorini's tourniquet had been applied to the tumor month after month, without any change. On September 4th, two fine long needles were introduced an inch within the sac. Pain and violent agitation of the whole body followed. The needles were withdrawn in twenty minutes, and pulsation continued. On the 8th, the tumor was still painful, and the patient in a nervous and depressed condition, and could not sleep. Leeches were applied and sedatives administered. On the 16th, there was much constitutional disturbance, but on the 19th, inflammation was subdued, leaving the tumor larger, though pulsation was not so strong. 27th, tumor harder, pulsation fainter. October 11th, no pulsation for three days. Tumor hard, and diminishing. Five months afterwards, the tumor was like an enlarged inguinal gland. The cure here was effected, not evidently by coagulating the blood, but by inflammation and deposit of lymph. The machine used was the electro-magnetic coil at a very low power.

In Germany, this method of cure has received favor, and in a paper of Dr. Werner Steinfeld we find the following facts, given with a view to effect an improvement in the manner of applying the agent. It appears that two German chemists, Baumgarten and Wurtenburg, made some experiments upon the coagulation of the albumen of the blood, with the following results:—

1st. If the negative pole be introduced alone into the vessel, the positive being applied against the neighboring parts, there was no coagulation.

2d. The two poles introduced into the vessel, produced slow, feeble, and rarely complete coagulation. (This surely was not the result of Petrequin's operation just detailed.)

3d. The positive pole introduced alone, produced rapid and complete coagulation.

The operation Steinlein bases upon these results is, to introduce into the tumor a number of needles connected with the positive pole of a battery. The negative pole should be supplied with a plate of platinum, which is to be placed upon the skin in the neighborhood, after having increased the conducting power of the epidermis by moistening it with a saline or acidulous solution.*

These are all the important facts and commentaries that we find worth quoting in the various Journals of our profession up to the present day. They are meagre when we consider the importance of the subject, and the promises held out by the operation *à priori*, or when viewed through several of the cases we have related. After taking an unbiassed view of the whole matter, we cannot help feeling still hopeful that galvano-puncture may prove an efficient and highly available means of combating aneurism. The objections to it, as presented in the cases just related, are the pain it causes, and the inflammation, suppuration and sloughing that may follow its use. Otherwise, it does what it promises to do, and does it thoroughly and efficiently. It causes the blood in the sac to coagulate, stops the current through it, and, as far as *this can* cure the disease, does so. It does this, too, without any previous cutting, an operation in itself painful and dangerous. The introduction of the needles is a simple, innocuous proceeding, can be effected when a ligature is entirely out of the question, and when compression could only be applied imperfectly and ineffectually. The question then naturally occurs, can these objections—pain, chance of inflammation, &c.—be done away with? We think they can, and that Steinlein's remarks point to the way. In the cases related, where these concomitants were so persistent, it seems to us that the battery used was not of the right kind. As a first objection, it was too powerful—and as a second, the plates were too large or too numerous, exciting thus violent and calorimotic effects instead of gentle chemical action. We need scarcely to call to mind the fact, that the larger the plates the more heat engendered. This is not what we want. What we look for in a battery for this particular purpose is a decomposing one which will confine its effects to this end, and not excite the violent stimulation to the part, and general perturbation, which these seem to have done. The battery used, too, should be so arranged that the amount of energy may be under perfect control, a point apparently not attended to by operators hitherto. The remedy being modified in these particulars, a thing which seems to us perfectly possible, we would esteem it as very valuable; and indeed could it be perfected to the point of producing coagulation of the contents of the sac without the untoward effects mentioned,

* Medical Times and Gazette, Dec. 16th, 1854, from a German journal.

we would rank it, in our estimation, *the first* amongst our remedies for aneurism. With these possibilities held out, we do not conceive we have misplaced galvanopuncture by putting it here, and we hope that our exhibition of it, frankly and fully, may stimulate others to achieve with it greater and more perfect success.

Styptics used within the Sac.—From the earliest times, efforts have been made to discover remedies that would staunch the effusion of blood. Long before it was known or even cared for upon what principle they did it, or what process was gone through in doing it, various liquids, vulneraries as they were called, were recommended for pouring into flesh wounds to arrest the hæmorrhage and to favor the healing of the wound. Many such liquids have, in their day, enjoyed great reputation and then been found deficient, and have been replaced by others whose fame has been similarly evanescent. Of late years, chemistry has exerted its powers to furnish the surgeons with efficient styptics, and has succeeded in supplying a most powerful one in the perchloride of iron. This article is obtained by a formula originally devised by M. Burin de Buisson of Lyons, which we need not give in full. It separates from the sulphate of iron a pure peroxide, and then dissolves this in white hydrochloric acid. The result is a liquid of a dark brown color when looked at in bulk, but of a rich greenish gold hue when held up to the light. It is powerfully astringent, and so actively coagulating in its effects, that if five or six drops be mixed with the white of an egg, diluted by double its weight of water, the whole will be converted into a thick mass.

Finding so powerful an astringent, it occurred to M. Pravaz, of Lyons, that it might be introduced with efficacy into aneurismal sacs to solidify their contents and obstruct the circulation through them.

At a meeting of the Surgical Society, of Paris, in May, 1853, M. Debout exhibited the two carotids of a horse, into which perchloride of iron had been injected. Into one of these vessels, the artery being held two inches above and below, six drops had been thrown. A clot had formed, but had been carried into the circulation upon removing the compression above. The lining membrane of the vessel was healthy, except at a small spot where an abscess seemed about to form. Into the other carotid fifteen drops had been injected, in a space two and a half inches long. This vessel remained plugged as long as the animal lived, and after death the whole clot was found adherent to the walls—the lining membrane being the seat of suppurative inflammation, and the vessel perfectly obliterated above and below by adhesive inflammation. Three successful cases are given in the same paper, which was read by M. Lallemand, who highly approved of the suggestion. One of the cases was of varicose aneurism at the bend of the elbow, another a popliteal aneurism, and the third one of the superior orbital artery.

Six months after this (Nov. 8th, 1853), Malgaigne read a paper before the Academy of Medicine which did not seem to confirm the promises held out in previous experiments with the perchloride of iron. Velpeau had tried it on a varicose aneurism at the bend of the elbow. The artery was compressed above and below, and eight drops injected, but, on removing the compression, pulsation returned. No bad effects followed, and on the eleventh day ten drops more were injected. The aneurism increased; a ligature was attempted, but the sac burst, and the patient narrowly escaped death.

Lenoir tried the same on a popliteal aneurism; seven drops were injected with no effect, and afterwards sixteen drops more, but equally inefficiently. Obtaining some more of the perchloride, but of a different make, the injection was repeated; violent inflammation ensued, and death resulted ten days after the last injection.

At the St. Andre Hospital, at Bordeaux, a brachial aneurism was injected with six drops, and immediately became hard. Two days afterwards seven more were used, and tremendous inflammation followed, and a ligature had to be applied as a precaution to the artery.

Another unsuccessful case is given by the same operator, M. Soule, and one, also, by M. Alquié, of Montpellier. M. Dafour also reports one that inflamed and burst, destroying the patient; M. Jobert one which caused gangrene of the limb and death, and another in which this was imminently threatened, but averted. The result has been 11 operations, 4 deaths, 5 serious complications, 2 cures, and these last with narrow escapes from serious damage.

With these results we shall have discarded this means of treatment as not being recommended to us by any peculiar advantages, and, even now, we do not consider that it offers any excellences which are not embraced in other procedures. Why we have introduced it here is, that it still has its advocates among the French surgeons, who find ready excuses for the untoward circumstances attending its use hitherto. By some it was thought that there was an excess of hydrochloric acid in the preparation. Others were of opinion that the injection should be made, not in the sac, but in the artery above, separating it from the sac and from the heart by compression for the time being—a thing clearly impossible in many cases. Even could its danger be lessened by such precautions, we cannot see its great excellence, or what advantage it holds out over galvano-puncture. The operation in the last is not greater than the introduction of the nozzle of the syringe, and the agent is much more under control. For our part, we have given a fair statement of what has been attained by it so far, and leave it to others to add to the catalogue of its effects. In other affections, or in operations where a powerful astringent

is wanted, we must say that nothing could exceed the excellence and efficiency of the perchloride of iron.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 25th. *African Idiot*.—Dr. JACKSON gave some account of the individual who is now being exhibited in this city, and who came from Barnum's Museum, New York. The attendant states that he was brought from about 500 miles up the Gambia river, Africa. A colored, showman's lithograph was exhibited, which, Dr. J. said, gave a very faithful representation of his general appearance; his stunted condition, which belongs to him as a perfect idiot, being well contrasted with the height of the visitors who surround him. His color is a dark-brown; his features well developed and African, though not strongly so; his expression happy, with a look of perfect health, as if he was well cared for; his tongue often protruding from his half-open mouth, as is frequently seen in the acephalous foetus; and his cranium one of the smallest, and formed as usual in such cases. He has all his teeth but his "wisdom teeth," as in the case of a young adult, his age, of course, being a matter of inference only; and he has this very remarkable peculiarity, that, when he closes his jaws, the incisor teeth do not come together by about half an inch, but leave an elliptical opening, as in the Chimpanzee. Without pretending to support Mr. Barnum's theory, that the individual forms a link between man and the monkey, and of which he probably knows full well the value, scientific as well as pecuniary, it may be further stated that, as in the higher simiæ, though not to the same extent, the elbow- and the knee-joints cannot be fully extended, and the calves of the legs, as is well shown in the figure, are remarkably deficient.

In regard to his habits and developments, the attendant states that he never makes any articulate sounds, that he takes chiefly vegetable food, but is fond of raw meat; that he has to be taken out every two or three hours to urinate or evacuate his bowels; that he sleeps well; and that he has hair about the pubes, with an occasional erection of the penis; he has, however, never known him to have an emission, nor to show any tendency to masturbation.

The following measurements were taken with callipers, &c.; and are the more satisfactory, as the head seems to be kept shaved. As these were reported, corresponding measurements were taken of the cast of the head of an idiot from the Society's Cabinet, and it will be seen that the individual now on exhibition is decidedly the most remarkable of the two; the cast was that of a girl, aged 17 years, from Cork. The measurements of this last will be, for distinction, in brackets. From between the eyebrows to the most prominent part of the back of the head, $4\frac{7}{8}$ [$5\frac{1}{2}$] inches. Between the orifices of the ears, $3\frac{7}{8}$ [$4\frac{1}{8}$] inches; this measurement is large, as the callipers would open on being removed, if they were fairly introduced even into the conchæ. Chin to vertex, $6\frac{7}{8}$ [$7\frac{1}{2}$] inches; chin to top of ear, $6\frac{1}{4}$ [$5\frac{1}{2}$] inches; and

top of the ear to vertex, $1\frac{3}{4}$ [$2\frac{1}{2}$] inches. Circumference of head at brows, horizontally, an inelastic measuring tape passing just above the adherent portion of the external ear, $14\frac{1}{4}$ [$15\frac{3}{4}$] inches. From the orifice of one external ear to that of the other, over the top of the head, $6\frac{1}{2}$ [10] inches. The height of the individual is 3 feet 9 inches; and one of the upper extremities measures, from the acromion process to the tip of the middle finger, 22 inches, following the curve at the elbow.

DEC. 9th. *Chronic Ulcer in the Stomach.*—The specimen was shown by Dr. JACKSON, who received it from Dr. D. W. THAYER. The ulcer commenced just at the pylorus, was of a circular form, and involved almost the entire circumference of the organ. The pancreas formed the base, and the ulceration had probably extended into it; for there existed quite a cavity, the diameter of which was greater than that of the ulcer itself. There was very little if any thickening or induration of the parietes about the ulcer; but the base was quite dense and perfectly smooth, with a free opening upon one side into the peritoneal cavity. The organ was otherwise healthy, and the other organs were sufficiently so. There were, however, old peritoneal adhesions, and acute peritonitis.

The patient was a gentleman, 72 years of age, who had kept some notes of his case, from which it appeared that he had been subject to occasional pain in the abdomen for the last eighteen or twenty years, and coming on with more or less severity two and a half or three hours after he took food. For many years he had pain only in the spring and autumn; and it was generally moderate, but sometimes severe, especially when he had taken cold. Oct. 29th, 1858, pain in the epigastrium is recorded; on the 31st, he vomited "two quarts of dark, sour water," and had no appetite.

On the 2d of Nov., 1858, he was seen by Dr. J. Bigelow, who found him in bed, with a very morbid countenance, and suffering, as he supposed, from an incurable and probably malignant disease of the stomach. There was a vomiting of blackish matter, probably blood; and there was a very distinct tumor in the epigastrium. Dr. B., who reported the case at the time to the Society, stated the remarkable fact that this last disappeared in the course of a week or ten days; and, the patient being otherwise relieved, his attendance was discontinued. This change in the case of course threw a doubt over the diagnosis. The symptoms of perforation were less marked than usual; the patient having been out, and about as well as usual, a few days before.

DEC. 9th. *Tumors in the Stomach of a Tiger.*—Specimen shown by Dr. JACKSON. The animal, with many others, probably died from suffocation at the late destruction by fire of a menagerie in this city. The tumors, six in number, were scattered throughout the body of the organ. They were quite defined, of a nearly circular form, from about three-fourths of an inch to one and a half inch in diameter, and projected very prominently into the cavity of the organ, but not at all externally; nor were there any peritoneal adhesions about them. Three of them having been cut through, were white, very dense, apparently fibro-cellular in structure, and without the slightest appearance of malignant disease; the others had the same feel. They were evidently formed in the submucous cellular tissue, though the muscular and mucous coats had become attached in all excepting the small-

est, and which was undoubtedly the one last formed. The most remarkable peculiarity in these tumors was the formation of a deep, defined central cavity, of considerable size, existing in four, with an apparent indication of it in a fifth, in the form of a dark-gray line; in the smallest tumor there was no distinct trace even of such a line. The cavity opened always upon the summit or centre of the tumor, and in two the orifice was so small, though the cavity within was of considerable size, that the idea of a follicular origin was suggested, though altogether precluded by the general character of the formations. The two smaller tumors certainly seemed to show that the cavity was a secondary formation. In the centre of one of the two largest was a deep, defined old cavity, about three-fourths of an inch in diameter; and in the hard base of it was a small opening leading into another cavity that was still deeper and of considerable size.

Another curious fact was the crowding of the cavity of three of the tumors with some kind of small parasite; in accordance with the well-known tendency that some species have to crawl into any opening that they may happen to find in the parietes of the alimentary canal. Four small ulcers were shown upon the surface of one of the largest tumors, just penetrating to the dense mass beneath; but otherwise the mucous membrane over the tumors generally was quite healthy, as it was elsewhere.

In connection with this case, Dr. J. referred to one that was formerly reported to the Society by Dr. C. E. Ware (*Boston Medical and Surgical Journal* for Aug. 26th, 1858); a Hospital patient, and in whom a dense fibroid tumor, about half as large as the fist, stood directly out into the cavity of the stomach; the mass being formed in the submucous cellular tissue, and having in its centre a cavity of considerable size. The tumor was very distinctly felt during life, though latent in regard to symptoms; the patient dying of disease altogether foreign to the stomach.

DEC. 9th. *Rupture of one of the Aortic Valves.*—Dr. ELLIS showed the specimen.

The patient was 20 years of age, and had never enjoyed good health, having been subject to chorea. He was also considered scrofulous, but his frame was large, and he had been drilling for some time in an artillery company. A week before death he found himself unable to do his duties as before, owing to a sudden loss of strength. He was first seen by Dr. Salisbury, of Brookline, Dec. 2d. He then complained of some pain in the epigastrium, and was quite nervous, though able to be about the house. The nervousness increased to such an extent that he could not sleep. The pulse was 85, and not remarkable in character. He occasionally coughed a little, and expectorated a little bloody matter. On the evening of the 5th, dyspnoea commenced, and increased until death, on the 7th or 8th. Nothing occurred to call the attention of the attending physician to the heart.

On examination, an irregular portion of the pericardium, over the right ventricle, was white and opaque. At a little distance from this was a new formation of fibrous tissue, and on the contiguous surface of the pericardium a similar one.

The heart was quite large, and the cavities filled with liquid and coagulated blood. The hypertrophy appeared to be universal. Two of the aortic valves were fused in such a manner as to form one, and

the appearances indicated that the peculiarity was probably congenital. This large fold had been separated along a portion of its line of attachment, and through the opening thus formed the blood must have flowed freely. The edges were partially covered with recent coagula, and, where exposed, looked as if separated but a short time.

The lungs were large, and filled with blood and serum.

The abdominal organs were sufficiently healthy.

DEC. 23d. *Chronic Peritonitis*.—Dr. MINOT reported the case.

The patient was a lady about 42 years old, who had been an invalid for the last twelve years, the principal symptoms being dyspepsia, muscular debility, hysteria and menorrhagia. She had been under every variety of treatment, but with no permanent benefit. The menorrhagia was excessive, and the existence of a uterine polypus or tumor had been long suspected, but though sought for, it could never be felt until June last, when, after an unusual amount of flowing, a fibrous tumor was discovered within the os uteri, about as large as a horse-chestnut. This was removed by drawing it down with hooks, and cutting it off with scissors close to the pedicle, which was about half an inch thick. The hæmorrhage was definitely arrested by the operation, but the general condition of the patient did not improve. A few weeks after the operation, she began to have nausea and vomiting, and for several weeks she apparently threw up everything she took. In August, she improved in this respect, and was able to take and retain large quantities of nourishment, which, however, was not assimilated, as she steadily emaciated. The mind became affected for the last three months of her life, and she was for a time very deaf. She died rather suddenly, seemingly of mere exhaustion, Dec. 20th. A very remarkable feature of the case was, that although considerable tuberculous disease was found in the lungs, the patient had only been noticed to cough a few days before her death, and no expectoration was ever observed; it was probably swallowed. The pulmonary disease must have been of recent origin. Dr. T. E. Francis, of Brookline, was associated with Dr. M. in the care of the patient.

The autopsy was made by Dr. ELLIS. The body was excessively emaciated, and the feet were strongly flexed, and turned inward, owing to muscular contraction, which had existed several weeks before death. Convolutions of the brain, quite thin, as in the aged. The amount of serum between the convolutions, and in the lateral ventricles, was much larger than usual. Brain in other respects normal. In the upper lobe of the left lung were several irregular, yellow, friable, tubercular formations, of considerable size; also an irregular cavity, upwards of an inch in diameter, communicating freely with the bronchi. Lower lobe normal. Upper lobe of the right lung similarly, but not so extensively diseased, and without a cavity.

Old and strong adhesions existed between the liver and adjacent parts, as well as between some portions of the intestines and parietes. Just beneath the peritoneum in all parts were seen round or irregular, yellow, opaque formations, of small size, apparently tubercular. A much smaller number of the same lay beneath the mucous membrane of the intestines. Pus was smeared over the external surface, and had collected in the pelvis.

In the large intestine, about eight inches from the anus, was a large ulcer, with a dark, sharply-defined margin. Some tubercular matter was seen beneath the mucous membrane around it. In the cellular

tissue external to it was an abscess, perhaps an inch in diameter, communicating with the intestine through a large perforation in the ulcer, of which the cellular tissue appeared to have formed the base.

The gall-bladder contained eleven calculi, two large and rounded, the others small and irregular. The lining membrane was thick, of a dull, white color, and at one extremity appeared as if a large calculus had caused absorption by its pressure. The kidneys presented nothing unusual.

The uterus and its appendages were all bound together by old and strong false membrane. The uterus was two and a half inches in length. Its inner surface was reddish-white, extremely irregular, and deeply ulcerated; yellow, caseous material filling some of the depressions. A viscid substance filled the neck. Projecting from the anterior wall of the fundus was an irregularly rounded, fibrous body, half an inch in diameter, which was the pedicle from which the tumor had been removed.

Other organs sufficiently healthy.

DEC. 9th. *Chronic Abscess discharging per Vaginam; Obstinate Vomiting; Hysterical Paralysis.*—Dr. S. D. TOWNSEND reported the following case:—A woman, about 35 years of age, had had a succession of abscesses for the past five years, which opened into the vagina, and were finally attended by vomiting, which was obstinate and incessant. At last it was accidentally discovered that this symptom could be instantly controlled by raising the cervix uteri with the finger, the vomiting returning as soon as the organ was allowed to return to its natural position; the insertion of a piece of sponge into the vagina had the same effect. The patient vomited for twenty-eight days everything she ate, and was nourished by enemata of beef tea and milk with laudanum, which she said she could taste in her mouth. For two days she did not take even water into her mouth; the vomiting then stopped. She had at one time hemiplegia, with inability to raise the head or speak. On the patient being etherized, all these symptoms vanished. She is now well, with the exception of an occasional discharge of serum from the vagina and rectum.

Army Medical Intelligence.

[From our Special Correspondent.]

WASHINGTON, D. C., JAN. 1, 1862.

MESSRS. EDITORS,—The new year finds me again in a hospital, or rather a building about to be converted into one, and I therefore hope soon to give you histories of cases more frequently and perhaps of more interest. Two beautiful and very convenient buildings have lately been converted into military hospitals; the one, the block of buildings known as "Minnesota Row," in which three noted men dwelt—Douglas, Rice, and the traitor Breckenridge; and the other, a beautiful residence, two miles from the Capitol, formerly occupied by the late Mr. Gales, editor and publisher of the *National Intelligencer*. The former has almost every convenience for a hospital—hot and cold water in abundance in every room in the "Row," and each room high and large, and the whole house well ventilated. This is under the su-

pervision of Dr. Abadie, who has been superintendent of the Columbia College Hospital for some time past. The latter ("Gales House") is situated where none but healthy air prevails, and every room is also well finished, large, high and well adapted to the wants of the sick and suffering. This is under the supervision of Dr. White, who had charge of the E Street Hospital prior to its destruction by fire in November last. I have no doubt he will here sustain the reputation he won at that Hospital, which by all was said truthfully to have held the foremost rank.

Two large Hospitals, each capable of accommodating two hundred patients, are being built in Washington, one on Judiciary Square and the other on Fourteenth street. They are said, by those who have studied the plans, to be very fine ones, and to reflect great credit on the Sanitary Committee who prepared them. They are merely for temporary use, and will be finished by the first of March. New hospitals are much needed here, and even though there should be no advance this winter, I have not a doubt but that every hospital will have as many inmates as it can well accommodate. Every one now open for use is nearly full, and I understand that there are many sick in camp who cannot be admitted into them. The fevers which a month ago were so prevalent, particularly typhoid, have very much abated, and given place to pneumonia, bronchitis, measles, &c., some account of which I hope to give you ere long. I have given in this letter a brief account of some of our new military hospitals, hoping it might not be void of interest to many of your readers. In my next I shall probably resume my series of cases, and proceed as usual.

With wishing you and your readers all a "happy new year,"

I am yours,

H.

Selections from Medical Journals.

SYPHILIS CONVEYED BY VACCINE LYMPH TO FORTY-SIX CHILDREN.—We have received, says the London *Lancet*, a polite letter from Dr. Pacchiotti, and the number for Oct. 20th, 1861, of the *Gaz. della Assoc. Med.* Both these refer to a very melancholy occurrence in the village of Rivolta, near Acqui, in the province of Alexandria (Piedmont), no less than forty-six children having more or less suffered from syphilis after vaccination. The facts connected with this unfortunate wholesale contamination are as follows:—

Towards the latter end of May last, M. Cagiola, a surgeon, vaccinated Giovanni Chiabrera, aged eleven months, and in good health, with lymph obtained in a tube sent from Acqui. The operation was performed in the ordinary manner, and with, as M. Cagiola affirms, a very clean lancet. On the tenth day after this, forty-six children were vaccinated with the lymph contained in the vesicle of the child Chiabrera; and ten days after these latter operations, seventeen other children were vaccinated from the lymph of one of the forty-six infants just mentioned.

Hence we have sixty-three vaccinated children, forty-six of whom were more or less affected with syphilis within two months after the first operation. In the first series of forty-six vaccinations there were thirty-eight cases of syphilis, besides little Chiabrera, the child vaccinated with the lymph contained in the tube; and in the second series, comprising seventeen infants, seven were affected. The child Chiabrera was in a state of marasmus on the 7th of October, and the infant from

whom the second series of seventeen had been vaccinated died a month after the operation.

These facts having come to the knowledge of the Medical Congress at Acqui, from statements made by Dr. Ponza, it was agreed that a committee, elected from amongst the members of the Congress, should proceed to Rivolta to inquire into these melancholy occurrences. From the able report of Dr. Pacchiotti we extract the following particulars.

The investigations of the committee were considerably aided by the unwearied exertions of Dr. de Katt, practising in the village. It has been found that of the forty-six children affected with syphilis, the cases of only twenty-three could be accurately noted, as the parents of the children neglected to call in medical aid at the proper time. These twenty-three cases were, however, sufficient to enable the committee to come to a clear diagnosis. In the whole forty-six cases, the symptoms of syphilis appeared, on an average, on the twentieth day after vaccination—viz., varying from ten days to two months. Sometimes the vaccine vesicle, just on the point of cicatrizing, inflamed, and became surrounded with a red, livid, and copper-colored areola, and then spread and suppurated anew. At other times, when the cicatrix was complete, an ulcer would form upon it, the crusts of which would fall off and fresh ones be produced. With some children the vesicles looked bad from the first, and were accompanied by a general eruption, which the country people considered as smallpox, and the characters of which the medical men of the neighborhood were not always able to ascertain. On the 7th ult. it was discovered that seven children had died without treatment, and before attention had been directed to this unfortunately fast-spreading contamination; three were in danger, and fourteen recovering, after having been subjected to a specific treatment. Thirty-eight at that period were under treatment, which consisted of frictions with mercurial ointment in the groins, axillæ, and on the limbs, with small doses of iodide of potassium in sarsaparilla syrup.

The principal symptoms noted by the committee were:—mucous tubercles on the verge of the anus and genital organs; sores on the lips and fauces; swelling of the lymphatic glands in various regions; syphilitic eruptions of various kinds; loss of hair; secondary ulcerations of the prepuce; deep tubercles of the cellular tissue; gummy tumors, &c. Two children out of twenty-three were in a wasting condition, and suffering from syphilitic cachexia; while some of the mothers had mucous tubercles on the nipples. In fact, the twenty-three cases are carefully related in the report, all the children having been seen by the members of the committee.

As to how the disease came thus to spread among these infants, the committee refrain from coming to a hasty conclusion, and ask for time to solve the mystery; the more so as these facts tend to no less than a complete upsetting of opinions hitherto held as very trustworthy. Thus the belief of two diseases not having the power of developing at the same time upon the same individual falls to the ground, as well as the non-contagious nature of secondary symptoms of syphilis.

Dr. Pacchiotti, the author of the report, indulges in commentaries on this sad case, and throws out, with extreme humility, various explanations, though trusting completely to none. He invites discussion and reflection on the phenomena which have been observed. Nor does he fail to record that such transmission has been before noticed. Dr. Parola has mentioned in his work "*On Doctrines connected with Vaccination*," a case, reported by Tassani, of Milan, in which a boy, whose father had at the time secondary sores on the scrotum, was vaccinated from a healthy child. From the vesicle of this boy fifty-six children were vaccinated; out of whom, thirty-five were, in a few months, syphilitic, and had diseased their mothers. On the other hand, it should be noted, that lymph from eight of these thirty-five syphilitic children was used to vaccinate a second series of thirty-four, and none of the latter showed any syphilitic symptoms. Another case (which was brought before courts of justice) runs thus:—In 1846, many re-vaccinations took place in the town of K—, where a surgeon re-vaccinated about ten families on account of an epidemic of smallpox; and the punctures, in three or four weeks, degenerated into syphilitic ulcers, followed soon afterwards by secondary eruptions. Hubner, in 1852, vaccinated thirteen children; of whom the greater part became syphilitic, though the rest escaped. Experiments have been under-

taken by Pitton, Boucher, Ceccaldi, and Lecoq, which prove the transmission of syphilis through vaccination; whereas, other experiments made by Schreier, Montain, Bidart and Taupin, show, on the other hand, that vaccine lymph obtained from a child, evidently laboring under hereditary syphilis, produced no evil effects upon those vaccinated with it. The reporter further alludes to an important thesis of M. Viennois, "On the Transmission of Syphilis by Vaccination;" and to the chapter on the same subject in the book of M. Rollet, of Lyons, entitled "Clinical and Experimental Researches on Syphilis."

From the facts related above, Dr. Pacchiotti deduces the following rules:—

1. Examine carefully the child from whom the lymph is taken.
2. Try to learn the state of the parents' health.
3. Choose, in obtaining the lymph, such children as have passed the fourth or fifth month, as hereditary syphilis, in general, appears before that age.
4. Do not use the lymph after the eighth day of the existence of the vesicle, as the lymph on the ninth and tenth days becomes dull by mixture with pus, which latter may be of an infectious nature.
5. In taking lymph with the lancet, avoid hæmorrhage, as there is less danger with pure and transparent lymph.
6. Do not vaccinate too many children from the same supply.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 9, 1862.

THE SANITARY COMMISSION continues its useful labors, and in a variety of ways is daily contributing to the welfare of our army. Not the least valuable result from its varied industry is the publication from time to time of its special reports on particular subjects connected with the health of the troops, prepared by reliable men, with special reference to the wants of the soldiers now in the field. It is quite natural that there should be a disposition occasionally manifested among old army surgeons to regard with some jealousy the operations of this Commission, as trenching somewhat on their peculiar domain, and tending to thrust them aside from the honor and responsibility which their professional *esprit* leads them to seek in the present emergency. Such feelings, we say, are natural, and it is all the more gratifying to know that they have not been so manifested as materially to interfere with the usefulness of the Commission. Obviously it is highly desirable to place in the hands of the medical officers of the volunteer regiments the most accurate, and at the same time the most condensed synopsis of professional experience in this department up to the present moment, without subjecting the inquirer to the necessity of going through long treatises on the subject, many of the most valuable of which, perhaps, are not easily accessible. Called so hastily, as they have been, from civil to military life, many of our surgeons cannot have had the time for a thorough reduction of all the information within their reach to a practical shape; and while in the service, their time for reading must necessarily be very limited. Hence the value of these Reports, as they are called, which are issued by the Commission from time to time, and some of which are of a high order of merit. One of them, which we have before us, is the Report on Military Hygiene and Therapeutics, prepared by a Committee of the New York Academy of Medicine, consisting of Drs. Alfred C. Post and

William H. Van Buren, and which is an admirable illustration of what we have said above. It is a condensed, practical treatise on this comprehensive subject, of only twenty-seven pages, but filled from beginning to end with just the information which was needed. Very valuable statistical results from numerous European authorities are given, based on the experience of their armies, from Waterloo to the taking of Sebastopol, which probably not one in a hundred of our volunteer surgeons could have obtained from any other source. The subjects of encampments in all their hygienic relations—the food and clothing, and the precautions to be taken for the preservation of the health of the men; the best methods of constructing and managing the Camp hospitals; the duties of the surgeon on the field of battle, and the inspection of recruits, are all included in this little pamphlet. The following extract contains some interesting statistics:—

The general practice of the French surgeons in the Crimea was to extract foreign bodies from wounds at an early period, whenever they were easily accessible. The most efficient styptics in arresting hæmorrhage, where the bloodvessels could not be conveniently tied, were the perchloride and the persulphate of iron. Amputations were generally resorted to in severe injuries of the limbs, and the results were more favorable than when conservative surgery was attempted. Primary amputations were much more successful than secondary. Scriver makes an exception to this rule in the case of amputation of the hip-joint. Nine primary amputations at this joint were performed by the French surgeons in the Crimea, and in all death took place within a few hours after the operation. There were three consecutive amputations at the hip; the patients severally lived five, twelve, and twenty days. Resections were generally fatal, except in the upper extremity. Scriver remarks, that when amputation was performed a day or two after an injury, it was much more difficult to induce anæsthesia than when the amputation was performed on the same day. The amputations were as follows: hip, 12; thigh, 1,512; knee, 58; leg, 915; foot, 241; toes, 220; shoulder, 168; arm, 912; elbow, forearm, and wrist, 278; hand and fingers, 282. The average dressings for each patient were: of linen, 2,482 grammes; roller bandages, 891 grammes; charpie, 1,181 grammes. The weight of dressings during the campaign amounted to 196,000 kilogrammes. (A gramme is about 15 grains; a kilogramme, 2 lbs. 8 oz. troy weight.) Average number of dressings for each wounded person, 35; total number of dressings, 1,400,000. Number of surgeons wounded by the fire of the enemy and by the explosion of magazine, 19. One died in consequence of his wounds. The labors of the surgeons were excessively severe. Each surgeon, on an average, was obliged to visit daily more than one hundred patients. Eighty-three French army surgeons died during the war. It is very evident that the amount of labor thrown upon the medical officers of the French army was unreasonably great, and that the number of these officers should have been largely increased. When an army is called into active service, and is exposed to pestilential diseases and bloody engagements, a much larger amount of medical service is required than can reasonably be expected of a surgeon and an assistant surgeon to each regiment.

Farther on, the report says that:—

The result of primary amputations at the hip-joint is so uniformly disastrous, that, in the opinion of your Committee, these operations should be discarded from military surgery. If the patient should in any case recover from the shock of the terrible injury which seems to require so formidable an operation as amputation at the hip-joint, the operation may be performed consecutively with better prospect of success, without diverting the attention of the surgeon, at this period, from a more hopeful class of cases.

There is another subject which your Committee would bring to the notice of the surgical section of the Academy; viz., the injurious consequences resulting from the hasty removal of the sick and wounded by a discomfited and retreating army. Under these circumstances, your Committee would suggest the expediency of leav-

ing the sick and wounded, with a sufficient number of medical attendants, to fall into the hands of the enemy as prisoners of war, in all cases in which there is a large number of patients whose lives would be greatly endangered by the removal, and in which reliance could be placed on the magnanimity of the victorious party. There might be a previous understanding between the belligerent parties, that hospital buildings, or tents, so abandoned, and surmounted by a flag of truce, or some other preconcerted signal, should be safe from attack.

Want of space prevents our making more extended extracts, and it is difficult to make selections where all is so good. We may have occasion hereafter to notice other reports of a similar character published by the Commission, convinced as we are that they are calculated to do much good.

DR. WM. J. DALE, Surgeon-General of this State, has been appointed by the United States War Department Acting Surgeon of the Army for Boston and vicinity. He will perform the duties of this office conjointly with those of his office in the State Medical Department.

Dr. Charles W. Moore, of Boston, has been appointed Surgeon, and Dr. A. F. Hall Assistant Surgeon, in the Eastern Bay Regiment, attached to Gen. Butler's Division, about to sail for Ship Island.

Dr. G. A. Wilbur, of Skowhegan, Me., has been commissioned as Surgeon of the 11th Maine Regiment, now encamped at Meridian Hill, near Washington.

Dr. David Wooster, Editor of the *Pacific Medical and Surgical Journal*, San Francisco, having been appointed Surgeon and Medical Director in the U. S. Army for the Department of the Pacific, has resigned the editorship of the Journal, and it will hereafter be conducted by Dr. James Blake, formerly of Sacramento, but now of San Francisco.

The Annual Catalogue of Students attending Lectures at the Massachusetts Medical College the present season, just published, shows the number to be 204.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 4th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	36	29	65
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	40.4	39.3	79.7
Average corrected to increased population, . . . . .	..	..	88.47
Deaths of persons above 90, . . . . .	..	2	2

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
10	0	6	3	3	0	0	1	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Dec. 28th.

Mean height of Barometer,	29.943	Highest point of Thermometer,	43.0
Highest point of Barometer,	30.472	Lowest point of Thermometer,	6.0
Lowest point of Barometer,	29.024	General direction of Wind,	W.N.W.
Mean Temperature,	22.9	Am't of Rain (inches),	1.89

COMMUNICATIONS RECEIVED.—The Mechanical Distortions of the Human Foot, their Prevention and Remedies.—Case of Meningitis.

DIED,—In Rowley, Jan. 3d, Dr. Joshua Jewett, 93 years 4 months.

DEATHS IN BOSTON for the week ending Saturday noon, January 4th, 65. Males, 36—Females, 29.—Disease of the bowels, 1—Inflammation of the brain, 1—bronchitis, 3—cancer, 4—consumption, 10—convulsions, 1—croup, 6—cystitis, 2—debility, 1—dropsy, 2—dropsy of the brain, 2—drowned, 1—epilepsy, 1—scarlet fever, 3—typhoid fever, 1—disease of the heart, 1—hernia, 1—infantile diseases, 3—intemperance, 2—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 1—old age, 2—pleurisy, 1—purulent absorption, 1—teething, 1—unknown, 4—whooping cough, 3.
Under 5 years of age, 25—between 5 and 20 years, 7—between 20 and 40 years, 12—between 40 and 60 years, 17—above 60 years, 4. Born in the United States, 44—Ireland, 12—other places, 9.

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No. 24.

DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE X.

It will be seen, from the statements already made, that one of the most potent agencies in promoting recovery from chronic affections is a perfect performance of the function of nutrition; and that, with a view to this, a due regulation of the diet is required. The general principles by which we are to be guided in this regulation have been stated, but there still remain a few other considerations that are to be kept in view.

Every case in regard to its management in this respect is to be studied by itself, and we are not to be governed by any arbitrary rules founded upon the supposed requirements of particular diseases. As has been formerly stated, precisely the same disease as to its pathological character, may require the most opposite arrangements as to diet in different persons, as well as in many other particulars. In pulmonary consumption, for example, one patient will thrive best upon a milk and vegetable diet—another upon a diet of animal food and stimulants. Why, we know not; we are to be governed by the fact that it is so, and not by any preconceived opinion that such or such kinds of food are suited to what we conceive to be the nature of the disease. The same is true of all other affections. It is true that in beginning the treatment we must be guided by certain general notions as to the nature of the case and its relations to particular kinds of food; but in this way we can only approximate to a true judgment of what the constitution of the patient requires. It is only by considering each case as an experiment, to be judged of on its own merits, that we can arrive at a satisfactory conclusion in what way it is to be managed.

Quantity has an important relation to the perfection, not only of the primary digestion of food, but also to the ultimate adaptation of the results of digestion to a perfect nutrition. The kind of food may be suitable, but a small excess in quantity may seriously interfere with its conversion into a proper material for nutri-

tion. This small excess is often felt in various ways during its presence in the digestive organs: by the state of the mouth, the breathing, the head, by *malaise*, and a general aggravation of symptoms; but even when not felt here or in addition to this, it may afterwards prejudice the progress of disease. The organs of assimilation can only perfectly prepare a certain quantity; any quantity beyond this is liable to introduce into the circulation, and present to the diseased parts, a crude and imperfectly elaborated material, which, although it may be borne with impunity by organs in a state of health, is liable to impair the sanatory process in those that are in a state of disease. In a state of health there is a power of selection which enables parts to correct in some measure the errors of the assimilation, to eliminate such portions of the material as are not suited to their purposes, and to cast them off by the excretions. In a state of disease, we have reason to believe, this power is impaired, or at least cannot be exercised without interfering with the attempt which is making to return to the normal condition. As a general rule, it is safer that the quantity should be somewhat less than can be satisfactorily assimilated, rather than greater. This is a frequent source of evil. Apparent weakness is so common a condition of those laboring under chronic disease, and is so obvious both to the patient and those about him, that there naturally arises an idea that this weakness is the principal evil to be contended with, and that its relief depends upon the amount of food that can be taken without positive and direct injury. In point of fact, the removal of weakness does not depend upon the quantity alone of nutritive material introduced into the blood, but also upon its quality; and upon the exactness with which it is capable of being applied to the necessities of the organs.

The form in which food is presented and the mode of its preparation, are also important items in the management of diet. This includes the question of a liquid or a solid diet, and also the degree of its dilution. Some patients digest liquids better than solids; and, of the liquids, those that are not highly concentrated. This can only be determined by observation, because differences in these respects are very common among those whose condition appears the same. Under the head of preparation are included all the particulars of the cooking, the mixture and the seasoning of food. So wide a subject can only be superficially glanced at. For the most part we are to prefer simple food, with no great variety at each single meal, but with considerable variety at successive ones, so far as this is compatible with the character of the case. Food which when alone is very successfully managed by the digestive organs, may cease to be so when combined with others. Of this we have the strongest example in mixtures where by the process of cookery they become pervaded by some form of oil; and this is more especially the case where its chemical character is changed by heat; but the same takes place, in a less degree,

with regard to sugar. Such combinations are withstood by many constitutions, sometimes permanently—by many only temporarily; but I am persuaded that the processes of cookery, of which these are samples only, are closely connected with that imperfect assimilation, and consequently that vicious nutrition, which not only hinder recovery from chronic diseases, but also have much to do with their origination. Mankind in general, and even physicians, are not sufficiently ready to look far back into the whole habits of life to account for disease. They attribute it to recent occurrences. But in the case of chronic affections at least, it is quite certain that, although their obvious onset may be sudden and determined by recent events, yet their existence is due to causes previously operating gradually and insensibly. Imperfect assimilation and faulty nutrition are probably the principal of these, and of other causes which contribute, such as cold, heat, bad air, the state of the mind, &c., it is probable that their efficiency is much due to their interference, either directly or indirectly, with the perfection of this fundamental function of life, either generally or locally. So also the distinct improvement in chronic disease from food, air and climate, from suitable exercise, from an improved condition of mind, and various other circumstances, is due to their influence on the digestion, the assimilation and the appropriation of the aliment.

The selection of a suitable diet is not, then, the only point of view in which this subject requires to be considered. The circumstances which are capable of influencing the whole digestive, assimilating and nutritive processes, are of equal importance. The common experience of life shows what a variety of causes are constantly modifying these fundamental operations. Affections of the mind change the appetite and digestion, and both the secretions and excretions, all of which are component parts of them. Sudden passion will deprave the character of the nurse's milk so as to produce sickness and vomiting in the child, as well as improper food. Grief will produce a bad taste in the mouth, a foul breath, a disturbed urine. Want of sleep will do the same, and will reduce the weight and the strength. Improper ventilation, foul air, poisonous exhalations, operate in an analogous way, also cold, heat, fatigue, &c. &c. Whatever, in fact, may be the primary effects of these various causes, their ultimate influence, so far as they are causes of disease, or preventives of recovery, depends upon their interference with the perfect performance of the great function of nutrition. In speaking, therefore, as we proceed, of the management of the patient as to many of its details, we are to understand that it is by their influence in this particular direction that their importance is chiefly to be measured.

In all forms and conditions of disease, both acute and chronic, the state of the patient as to sleep is an important consideration, both as regards his comfort, and also as regards the satisfactory

progress of his case. The nature of this condition of animal life we do not fully understand; we only know that it is a necessary one and having a vast influence on the state of the system. Its purpose seems to be to afford an opportunity, by the suspension of certain activities of the system which require the exhaustion of those powers that emanate from the nervous system, for the reinforcement of those powers. It is also during sleep that the repair of the tissues by nutrition is provided for. Not that all nutrition is suspended during our waking hours, or that all waste is suspended during sleep, but that in the two states of sleeping and waking there is respectively a large predominance of the repair and the waste. Sleep is not merely rest, as it has been sometimes considered, an entire rest of all the organs at once. It is something specifically different. It is a condition of an entirely different nature, and a condition for which rest is not in any sense a substitute. The mere fact of existence, without exercise, without fatigue, the simple going on of life, implies a certain expenditure of force, which renders necessary at certain intervals a suspension of those functions of the brain and nervous system which are subservient to the phenomena of mind. It is possible that ordinary rest might afford an opportunity for the nutrition of all these tissues, except those which are the agents of the mind. But it seems to be necessary for the repair of these, that the functions of the mind should be also suspended. Of the physical condition of the brain in sleep, and also concerning the peculiar state of the mind in sleep, notwithstanding the many theories which have been formed concerning them, we know nothing with certainty, and this is not necessary to the practical management of the sick. What should guide us is the knowledge that a certain amount of sleep at proper intervals is an absolute necessity, and that its absence or its deficiency is always a great evil, and to be prevented by every possible means.

In acute diseases a sufficient amount of quiet sleep is at once a favorable indication of the nature and issue of a case, and also is an important agent in the promotion of a favorable issue. Its absence, on the contrary, is, *pro tanto*, an unfavorable indication as to the issue, and also promotes an unfavorable issue. Want of sleep adds to the sufferings of the patient, and also to his exhaustion, and consequently interferes with the success of the sanatory process and impairs the power of recovery. In every point of view, then, the state of the patient in this respect becomes the object of special attention.

Salutary changes in the condition of a patient will be often found to take place during sleep, and to manifest themselves most obviously on awaking from that which has been sound and refreshing. But the sleep here is not so much the cause of the change as its consequence, and yet if any circumstance prevent the sleep, the favorable symptoms are less likely to occur. The general purpose

in acute disease is, throughout, to discover those circumstances which may prevent sleep, and endeavor to counteract them. Thus, the absence of sleep may be caused by an irritable and loaded state of the bowels, and then an enema may give relief; by the heat and irritation of the skin from a paroxysm of fever, and then cold sponging, the warm bath, a warm foot-bath with infusion of hops or poppies, may answer the purpose; or coldness of the feet may be the cause, and then warmth of any kind may be employed. Sleep should be procured without direct medication, where practicable, but this is not always practicable; and, when not, various articles can be given, which are sometimes successful. Such are all the ethereal medicines—tincture of hops and belladonna, and some others. But these very frequently fail, or succeed but for two or three nights. Where the evil is a very marked one, the experiment should be tried of procuring sleep by opiates. These, it is true, often fail, and often give occasion to a variety of uncomfortable feelings. How far these should influence us to abstain from their use, is one of the most delicate questions in practical medicine. As I shall have occasion to speak more particularly of the qualities of opium hereafter, in connection with some of its other uses, I shall only remark here that the procuring of sleep by it, is so important an object in many cases, that this beneficial effect is not to be sacrificed, where the necessity is urgent, without a fair trial of several preparations, and in more than one way. Where a full dose by the mouth either fails of effect, or produces unpleasant secondary effects, its administration by the rectum may succeed; and where full doses in both these ways fail, a repetition at short intervals through the day, of very small doses, such as five or six drops of laudanum, or its equivalent of some other preparation, will succeed. It must be confessed, however, that there are some patients so unfavorably affected by this drug, that in no way can it be endured.

In chronic diseases of all kinds, the same attention to procuring sufficient sleep is an important item in the treatment. In many cases where patients are afflicted with insomnolence as a prominent symptom, it will be found to depend upon some circumstance which is capable of removal. Thus, in some persons, taking any solid food after the middle of the day, or in others the entire omission of food, will prevent sleep. The remedy in such cases is sufficiently obvious. Where the sensation of hunger is the cause, the purpose is better answered by a meal of some very light digestible food, such as a cup of milk porridge, or of warm milk, than by anything more substantial and slow of digestion. Still to this, as to every rule of dietetics, there are many exceptions, but these are more likely to occur in persons who are not laboring under distinct disease, but are wakeful in their ordinary state of health.

The suggestions made with regard to acute diseases are, in

a general way, applicable also to chronic. Opium in these is less likely to produce immediate ill effects, and it is also easier to counteract them; but, on the other hand, since in acute diseases the absence of sleep is a temporary evil, and one which subsides at convalescence, its use is less likely to degenerate into a habit. In chronic cases, therefore, so far as its ultimate effects are regarded, this consideration is of no small importance. In acute cases there is seldom any danger that the patient will be led to the continued use of opium after he gets well, and we may therefore safely avail ourselves of its beneficial effects without regard to the future; but in chronic ones this is far from being the case, and it will sometimes happen, where patients have had comfortable sleep procured for some time by this drug, that it is very difficult to wean them from its use, when their disease has subsided. In persons of feeble resolution and of nervous temperament, it may be as hard to cure them of the habit of depending upon opium, as of the use of tobacco or of alcoholic stimulants.

When, therefore, there is a prospect that opium will be likely to be required for a long time, every expedient should be first employed in order to answer the purpose, and a considerable amount of wakefulness be endured, rather than resort to it. Besides the articles above mentioned as applicable in acute cases, there are others more peculiarly adapted to chronic, such as hearing reading aloud, the recurrence of monotonous sounds, repeating from memory, going through arithmetical or other calculations, with the eyes shut. The state of the skin may require alteration by a warm bath; of the feet, when cold, by warm applications; of the head, when hot, by cold sponging. The mind may need tranquillizing. A disturbed state of the nerves may be present, which sundry articles have the reputation of soothing, and perhaps with reason, such as valerian, assafoetida, musk, castor and camphor. There are some milder popular remedies, such as warm infusions of sage, balm or catnip, a cup of wine whey, or of spirituous liquor and water. Something of the efficacy of these may properly be attributed to their effect upon the patient's mind. His expectation of some effect from the remedy he has taken, and the direction of his attention to it, undoubtedly tends to render that effect more likely to occur. At any rate, sleep is sometimes thus procured, and occasionally by a succession of such expedients the object is secured for a long time, but more frequently they at length fail of any effect.

It sometimes happens that after a short nap on first going to bed, a person awakens without any known cause, and then remains obstinately watchful for many hours. In this case, if he rises, washes his face, hands and feet, walks about briskly for awhile and returns to bed, the charm may be broken and a continued sleep will ensue. Or he may rise and write or read with the same result. Too much or too little bed clothing in very sus-

ceptible persons, may prove a cause of wakefulness, even when the patient is not aware that he is too hot or too cold. The choice of measures must depend upon the condition of the patient, since it is obvious that many of those mentioned are not universally applicable. There is one injunction frequently insisted upon, viz., that drowsiness in the day should be resisted, lest it should prevent sleep at night. This is sometimes true, but not always. In a majority of wakeful persons, it has been rather found, that a nap in the afternoon does not prevent sound sleep at night, but rather promotes it. And this seems to be accounted for by the consideration, that the slumber in the day soothes and quiets the system, and removes that irritation of the nerves which is so likely to occur from various causes in the course of the day, and thus predispose to watchfulness in the night.

But in spite of every expedient, it must be confessed that this symptom is, in many chronic cases, an exceedingly difficult one to manage, and that many persons are at length obliged to rely upon some form of opium.

I have alluded above to the state of the skin in connection with the sleep. We may further speak of the state of this organ—a very important, as well as extensive one—as exercising no inconsiderable influence not only upon the comfort, but also the internal condition of the patient. A hot and dry state of the skin on the one hand, or a cold, contracted and shrunken one on the other, are always attended with discomfort, and should be remedied as far as practicable. It is to be acted upon as a general rule, to bring the skin as nearly as possible into its natural condition. Hence, a dry and hot skin should be kept moist and cool; a cold and very damp one, warm and dry; a contracted and shrunken one, active; by suitable applications. True it is only effects of disease which are thus removed, but the removal of effects may aid in the removal of causes—as correcting the very hot, dry skin, which attends pain in the head or fever, often diminishes both. An imitation of the natural soft state of the skin, where it is very hot and uncomfortable, by sponging with a mixture of glycerine and water, removes the irritation it occasions, and thus secondarily may reduce the pulse and respiration. I do not speak of these as direct remedies of disease, but as alleviants of symptoms, and thus aiding the progress of recovery according to its natural law.

We sometimes find the skin in a state which contributes not only to great discomfort, but seriously impedes recovery. It is soft, flabby, moist and pale. It has a sodden look and feel. The hands and fingers are corrugated as if they had been soaked in warm water. This is sometimes an effect of disease, but not unfrequently merely of mismanagement. In disease it occurs under various circumstances, as in hectic fever, acute rheumatism, inflammations within the abdomen—both mucous and serous—in many of the lesser puerperal affections, and in mammary abscess. Where

not an essential product of disease, we find it has been produced by too warm and too close a room, and too much clothing to the person and the bed. Thus there are those, both among patients and nurses, whose chief apprehension in sickness is a nervous dread of cold. We find the sick person in bed, cased in all or more than all, the flannel and other appendages which are worn in health. If a woman, as is apt to be the case, she retains the woollen waistcoat, drawers and linen with which she got into bed when first seized; to this she has added a pair of woollen stockings and a thick petticoat. Thus equipped, the skin has become tender and sensitive. The least movement of the bed-clothes, or the slightest draught of air, produces a feeling of chilliness, and blanket and comforter, one after another, are heaped upon her; a muffler is pinned around her head, a shawl drawn around her shoulders, a jug of hot water is placed at her feet, the windows are hermetically sealed, and she is fed with hot teas. She still has frequent chills, and you find her hot, nervous and restless. Yet the essential symptoms may present nothing alarming. The pulse, though excited, may be very good, the tongue tolerably clean, the appetite not deficient, and no want of sleep except what may be fairly attributed to her surroundings, and these would rob the healthy of it. Here we have to regard the real tenderness of the skin, which has been thus created, and the nervous apprehension of the sufferer; but by removing all incumbrances from the person except a single loose cotton or flannel gown, by reducing gradually the burden of bed-clothes, by admitting cool fresh air into the room—avoiding its direct flow upon the person—by administering cooling drinks, and drying the skin thoroughly by sufficient frictions, the patient speedily passes from a state of comparative torment of body and mind, to one of ease and tranquillity.

Where this condition has not been artificially induced in a mild case, but accompanies a grave disease, the same general measures are adapted to mitigate it and give comfort, even although it necessarily continues. The cause and character of a permanently too copious sweating, is different in different cases. The sweat is sometimes sour, sometimes foetid, sometimes highly saline, of a urinous odor or ammoniacal, or quite sticky and slimy. Various expedients for relief will suggest themselves, according to different circumstances, such as warm dry friction with a cotton or woollen towel, rubbing the skin with absorbent powders, such as powdered chalk, Indian meal or bran applied with a woollen mitten—washing with soap and water, with an alkaline solution, with a weak acid, with alcohol more or less diluted, and applied either warm or cold, according to the heat or any other possible indication, as the preference of the patient and its effects. Whenever articles are used which leave any residuum upon the skin, this is from time to time to be carefully sponged off. Merely bathing the whole body with olive oil, as in the sweats of phthisis, will be

occasionally found to give some relief. Many articles internally administered have the reputation of diminishing these perspirations which are so debilitating to many persons afflicted with exhausting chronic diseases, especially phthisis, scrofulous affections of the joints and chronic suppurations of all kinds. Among these, diluted sulphuric acid is most commonly employed and most effectual; but, besides this, acetate of lead, oxide of zinc, gallic acid, and other vegetable acids, are found more or less efficacious. Usually, however, the corrective influence is transient, and continues but a few days before the symptom returns. Sometimes the simple expedient of clothing the patient in a loose, light flannel night-gown is more successful and durable than anything else.

(To be continued.)

EXTRACT OF FLESH FOR ARMY USES.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Not having seen any allusion in the reports or statements of the Army Surgeons, or the Sanitary Commissioners, respecting the dried Extract of Flesh, I infer that attention has not been called to this important article for army purposes. It is a nourishing, easily assimilated food, in the most concentrated form. Enough can be stored in an ordinary watch-fob to sustain a soldier a week. It might, however, be regarded as too expensive for ordinary use, but in the hospitals, and on the battle-field, it would be almost criminal to fail to supply it, if the experience of military surgeons agrees with that of many eminent chemists and physicians. Parmentier, in the *Annales de Chimie et de Physique*, Vol. XVIII., p. 177, thus speaks of it:—"The dried extract of flesh, as an article of provision in the train of a body of troops, supplies to severely-wounded soldiers a restorative or roborant, which, with a little wine, immediately revives their strength exhausted by great loss of blood, and enables them to bear the transport to the nearest hospital." Liebig, in his work, *Chemistry of the Food*, remarks, "It appears to me to be a matter of conscience to recommend to the attention of governments the proposal of Parmentier. I consider this extract of flesh as not less valuable for provisioning of ships and fortresses in order to preserve the health of the crew or garrison, in those cases where fresh meat and vegetables are wanting."

It is stated that it is used in the French and Austrian armies, with the approval of the most eminent military surgeons. Its use among the wounded on the battle-field might be the means of saving many valuable lives. The exhaustion and sense of intolerable thirst, might be in a measure removed by a single draught from a canteen filled with the rich soup resulting from the solution of a half ounce in a pint of water. A half ounce represents the whole amount of nutriment in a pound of fresh beef.

Its method of preparation is very simple, and when conducted on a large scale, with steam apparatus, cannot be very expensive. The whole process consists in taking lean beef, free of bone and fat, chopping it fine as when used for sausages or mince-meat, and mixing it with its own weight of cold water. It is then slowly heated to boiling, and allowed to boil briskly for a moment or two, when it is strained through cotton cloth, to separate the coagulated albumen and fibrin. The evaporation to dryness of the solution, must be conducted at a low temperature by a water bath or steam heat. The powder is readily soluble in water, and nearly eighty per cent in alcohol. Its degree of solubility in alcohol is a test of the genuineness of the extract. If a less quantity than seventy-five or eighty per cent is soluble, it should be regarded as spurious, or imperfectly prepared. The experiments of Proust and Liebig abundantly prove, that those constituents of soup upon which its taste and nutritive properties depend, exist ready formed in the flesh, and are not in any way products of the operation of boiling. The extract will remain unchanged for a long time, if properly dried. A specimen prepared nearly a year since, I find, upon trial, to be perfect, and forms in solution a grateful soup, having all the characteristic odor and taste of the fresh article.

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Bibliographical Notices.

An Improved Method of treating Fractures of the Thigh. By GURDON BUCK, M.D. New York: S. S. & W. Wood. 1861.

THE pamphlet with the above title is a paper which was presented to the New York Academy of Medicine, and consists of a description of the apparatus used by its author, with the history of twenty cases of fracture in which it was applied.

Whenever a variety of drugs are recommended for their efficacy in a given disease, the inference is that it is not amenable, or only in a minor degree, to any of them. If the same is true in surgery, we should say that the ingenuity spent upon certain supposed desiderata in apparatus for fractured thigh, augured unfavorably for the satisfactory success of any mechanical means in the treatment of this accident. Considering its usually favorable termination, we are inclined to think that, up to a certain point, this observation may be considered as true, and that the various splints, beds, inclined planes, &c., which have at different times and places been thought so near perfection, may, many of them, be deprived of much of their machinery, or even abandoned altogether, without inconvenience to the surgeon, or detriment to the patient.

Of the numerous appliances, however, which deservedly maintain their reputation, the apparatus described in the paper before us, and introduced by Dr. Gurdon Buck, of New York, commends itself before all others for its simplicity and lightness, for its manifest efficiency, and, compared with many methods in use, for the comfort with which

it may be worn. To get rid of the short splint on the inside of the limb, and still better of the long outside one, to cast off the "surcingle" which accompanies a "Dessault," and successfully to reduce the trappings of a fractured thigh to a bandage, short coaptation or compressing splints, two India-rubber springs, and some bottles of water, is an achievement which cannot be regarded otherwise than as an immense improvement over the means commonly adopted in the management of this injury.

In the light of the generally accepted opinions as to extension and counter-extension, Dr. Buck's apparatus must be considered one of the best yet invented to fulfil the ends it has in view; whether it will, in the hands of others, accomplish results equal to those recorded by its skilful originator, remains to be proved. So many considerations determine the final issue of a broken thigh—and none more than the time which elapses between the accident and the "setting" of the bone—that to expect recovery without shortening, except in children, or as an occasional event in the case of an adult, is hardly to be permitted. Fortunately, shortening, within certain limits, is not a serious consequence. It often passes unnoticed after fracture of the leg, and the compensatory curvature of the spine and inclination of the pelvis on the side of the shortened limb, in most cases gradually meet the inconveniences and lameness which accompany it, at whatever part of the extremity the fracture may have occurred.

The question suggests itself, then, whether extension and counter-extension is, after all, so absolutely necessary as has been taught. There are those who think not. More than ten years ago, in a foreign hospital, we saw a patient treated for fractured thigh by compressing splints alone, with only a bottle of water tied to his foot to keep the limb straight, and in whom the ultimate result was as good as would usually be expected. M. Velpeau has recently declared (*Gaz. des Hôp.*, No. 101) that he looks with little favor on the numerous extending and counter-extending apparatus to prevent shortening after fracture of the thigh; and Mr. Syme says: "There are few principles more firmly established, or, as it seems to me, more entirely erroneous, than that extension is essential for the successful treatment of a fractured thigh-bone. I long believed and taught this as an incontrovertible truth, but for some time past have been satisfied that it is equally unsound in theory and opposed to good practice."—(*Obs. in Clinical Surgery*, Edinburgh, 1861.) He accompanies this statement with a table of sixteen cases, treated without extension, in the Edinburgh Royal Infirmary, between Sept., 1859, and March, 1861. In one of these cases the two limbs, at the close of treatment, were of the same length; in another, the shortening amounted to one inch, owing to the complication of a fractured leg; in the remaining fourteen it varied from one half to three fourths of an inch, but in no instance made any difference in the gait of the patient.

Let us contrast these with Dr. Buck's results, who himself admits that the perineal band of his own apparatus may be, under certain circumstances, dispensed with altogether, especially in the treatment of heavy, female patients and young children. It does not appear, however, that any of the cases which he reports were treated otherwise than by extension and counter-extension combined. We throw out of consideration from his table two cases of impacted fracture of the cervix; one in which a previous fracture of the same bone had left a

degree of shortening not ascertainable with certainty, and another in which this had been already produced by disease of the hip-joint. In the remaining seventeen cases the extremes of shortening vary from nothing to one inch and a quarter, whilst the average is a fraction less than one half an inch. One patient, an adult, recovered without any shortening, and two with one eighth and one quarter of an inch respectively. Three children, under six years of age, regained limbs of exactly the same length, and two, of twelve years of age, had each a shortening of half an inch.

These results are certainly admirable, though many persons perhaps will be surprised that there is not a greater contrast in the two tables just cited, advocating opposite modes of treatment. In face of so slight a difference, does it not appear probable that the simplest apparatus, with broad, well-strapped compressing splints, and an attentive and judicious surgeon, will keep shortening within limits, and accomplish all which art or machinery can do to prevent lameness; and if this does still occur, that it is due to the peculiarity of the fracture or to circumstances beyond the influence of treatment.

The facility with which Dr. Buck's plan may be carried out, and its simplicity and economy, can hardly fail to make his improved method recommend itself to any one who witnesses it in use. If not equal to the accomplishment of all which the surgeon can hope to effect, is it not the forerunner of a more rational treatment of a most serious accident, and another admission that Nature in traumatic lesions may achieve as great triumphs as she does in disease?

Army Medical Intelligence.

[From our Special Correspondent.]

WASHINGTON, D. C., JAN. 7, 1862.

MESSRS. EDITORS,—I had the pleasure a few weeks since of seeing a very interesting case at its commencement, and I have followed the case up to the present time with much interest. Dec. 12th, 1861, private J. H., Gen. Buel's Body Guard, while riding across Long Bridge was thrown from his horse a distance of eighteen feet, striking against a baggage waggon going in advance of him. The horse followed and trod upon the tibia of his left leg, causing a compound comminuted fracture of both the tibia and fibula, with a flesh wound nearly three inches in diameter. But this was not all. The hoof of the horse struck next upon the scrotum, making an incision an inch and a half long, but fortunately not injuring the testicle. It also made a scalp wound of two inches in length. The under lip was cut fearfully in the right corner, the inferior coronary artery also being divided, and bleeding quite freely. Half an inch of the upper lip, just at the left of the median line, embracing its whole breadth, was completely gone. Here the superior coronary artery was divided, and blood was flowing freely. In falling, the patient had bitten his tongue, severing it from the tip down towards the base to the extent of two inches. His nose was fractured, and a wound on the left ala communicated with the nasal bones. All these wounds, together with the dirty condition of the patient, who was bespattered with mud, presented a woful ap-

pearance. He was brought to the 5th Street Hospital (a branch of the E Street General); his leg was placed on a double inclined plane; the coronary arteries were tied, and the wounds in scalp and scrotum brought together with sutures; the nose was placed in good position; three sutures were put in the tongue, very deep, that they might not slough away; the wound in the upper lip was trimmed and then brought together with three silver hare-lip pins, and the wound of the lower lip treated in the same way.

Dec. 19th.—The hare-lip pins were removed, and the contraction of both lower and upper lip was nearly the same, making them, of course, somewhat compressed, but equally so. The tongue was entirely healed, and the ligatures were removed. Perfect taste was enjoyed, even on the tip of the tongue. The wound of the leg was poulticed, and suppurates considerably. Bare bone could be seen and felt.

Jan. 5th.—The wound had ceased suppurating, though bare bone could still be seen. The double inclined plane was removed, and a most excellent splint applied. It consists of Canton flannel, thickly besmeared with the finest plaster of Paris, which immediately hardens. This is now commonly used in this hospital, and with unvaried success. The patient is able to walk about, the splint being of the firmest character.

This case has been very interesting to me—first, from its novel features; and, secondly, from its satisfactory results. II.

QUALIFICATIONS AND DUTIES OF THE REGIMENTAL SURGEON.

[Communicated for the Boston Medical and Surgical Journal.]

I PROPOSE, in continuation of my remarks on the Army, to speak at present on the qualifications and duties of the Regimental Surgeon.

Qualifications.—The qualifications, as far as my observation goes, of a regimental surgeon, should be, First, a good general medical education, accompanied with a knowledge of as many modern languages as possible. Secondly, he should have had eight or ten years' experience in the practice of his profession, with a disposition to pay particular attention to the surgical portion of it. Thirdly, he should be a man of good constitution, in good health, with a considerable amount of executive energy. Fourthly, he should be a gentleman, and accustomed to good society. Fifthly, *he should not use intoxicating drinks as a beverage.*

These qualifications will be demanded in the daily performance of his duties, and in no case should any one of them be wanting.

The position of regimental surgeon is one of great delicacy and responsibility, and the incumbent should be free from the suspicion of corruption. He stands between the government and its just demands on one side, and the passions, interests and inclination of the soldier on the other. The highest in command are not beyond his influence, or too elevated for the sphere of his beneficence; while the common soldier depends on him for a thousand favors, and even sometimes for life itself. The surgeon must be able to associate with equal dignity and propriety with the private and his commander; with the general and with the corporal. In closing this portion of my remarks, allow me to say that it is a duty he owes to his profession, on all occasions to insist upon a full acknowledgment of his military rank and standing. If I have observed rightly, there is a strong disposition among

the officers who denominate themselves combatants, to ignore the military rank of the peaceful and amiable surgeon. This rank is distinctly marked in dress, on military parade and in battle. Let the surgeon always insist, quietly but unflinchingly, on his military rank. I need not open the discussion on this subject, since it has been so well and effectively argued by my predecessors in the army. There are one or two points, however, I will mention.

First, The rank of major and its pay are, in my estimation, scarcely equal to the responsibilities of the position of regimental surgeon.

Secondly—(This is going out of the track a little), On being promoted, as it is called, from regimental to brigade surgeon, where the responsibility is increased some three to six fold, there ought to be a corresponding advancement in rank and emolument.

I have spoken enough of the qualifications of regimental surgeons, I will now proceed to state some of his duties.

The first great duty of the surgeon, of course, is to attend to the wants of the sick. For this purpose, in a new regiment, he must get his hospital properly organized, well supplied with medicines, beds, bedding, cooking utensils and furniture. The particular mode of doing this, is laid down in the regulations quoted. These regulations he must follow explicitly, *verbatim et literatim*. With all the care he can give to it, however, he will find many vexatious delays, and what will appear to him unnecessary hindrances. He will find, especially, that his table of supplies (medical) for field-service, will appear to him exceedingly inadequate to the demands of the service. He will be surprised to find but one tonic in his *materia medica*; and that only the simpler remedies, in the way of cathartics, &c., will be found there. This can be remedied more or less by special requisitions, and personal application at head-quarters. His hospital officers demand his special care. He has to select them from the ranks, and he does not desire to weaken the army by placing strong men in these positions. He will find one man or boy who has spent some time in an apothecary's shop; him he will make pharmacist to his hospital. He will find another who has been a nurse; him he will make his hospital steward. Others, who are unfit for active duty, may be transformed into nurses (taking one from each company), cooks, ward-masters, washer-women, &c.

In his little kingdom his eye must be everywhere. At his early morning, or sick call, he must be found in the hospital, dressed with military precision, his ward-master, steward and assistant around him, with the sergeants of the different companies, books in hand, each one followed by the sick of his company. He sits down and calls for the sergeant of company A, who in turn reads his list of sick, bringing each one before the surgeon, who questions the patient, prescribes the remedies, dictates the treatment, and tells the sergeant whether the man is fit for whole duty, half duty, or no duty. This is a delicate part of his programme; the commanding officers are anxious to distinguish between the lame and the lazy, between the sick and those who feign to be sick. The surgeon cuts the Gordian knot, and while he protects the weak, inexorably condemns the lazy to duty. Thus he proceeds through the whole regiment, and often prescribes during the morning for from seventy to one hundred men. This is evidently no child's play. The ulcers, wounds and other sores are handed over to some of the hospital officers to be washed and dressed. The ward-

master stands at the surgeon's right, and keeps a record of the cases and their treatment, from which, in less than two hours, he makes his morning report to the commander of the post. The hospital steward sees that the medicines are given to the patients as directed, and supervises the administration of everything. The assistant surgeon attends to such duties as are assigned to him, and after the morning clinic, accompanies him through the wards of the hospital, where the ward-master still retains his position as clerk; the hospital steward gives an account of the treatment during the last twenty-four hours, and the assistant surgeon dresses and re-dresses fractures, wounds and other injuries, under the direction of the surgeon.

The latter then passes into the cooking and washing departments, looks after the supplies of the day, and finishes his morning round by returning leisurely to his tent. On his way he meets one sick man who was asleep when the call was made, another who wanted to see him privately, and another who wanted to tell him a long story about getting out of the service. In the midst of these interruptions, the surgeon detects the quick, sharp sound of the "officer's call," finds himself in a few seconds amid a crowd of others before the Colonel's tent, and is horrified at some terrible outrage that has taken place during the night at the camp, as reported by the Colonel. Some one has passed the guards without the countersign, or some luckless sentinel has been found sleeping on his post, or there has been "revelry by night." To all this the surgeon shrugs his shoulders, leaves his fellow officers, sits down in his tent, receives the visits of his friends, generally in the form of patients, and attends to the miscellaneous duties of his office during the day.

It is of course understood that he has made proper selection of his site for the hospital; that he has avoided a position where the prevalent winds would carry miasm from a neighboring marsh; that it is near plenty of spring water; that the ground is high and dry, that it drains itself, and is far enough from the camp to be out of the effluvia of the latter, and yet not so far as to make it troublesome for the patients to get to it. He takes care to have his hospital frequently well ventilated, has a sink prepared expressly for its inmates, allows no offal to collect around the hospital, sees that the officers keep the beds and bedding clean and frequently renewed, draws out a set of rules and regulations for the hospital, has them written out and hung up in a conspicuous place, and, in general, guards the interests of the institution with paternal care and solicitude.

I would recommend the surgeon to be scrupulously careful in his dress, as well as in his address. Let him dress equal to his rank always. While I would not recommend that he should be distinguished for primness, or exhibit the characteristics of a *petit maître*, his linen and skin should always be clean, his boots properly blacked, and nothing worn but what belongs strictly to his office. The disposition to adapt himself to the low habits of officers or men, will unfailingly degrade him, and he will not receive the respect due to his position.

But space does not permit my continuing this catalogue of duties. Should you think well of it, I will continue it in my next.

Respectfully yours,

JAMES BRYAN,

Brigade Surgeon to Gen. Burnside's Expedition.

THE following letter is from Surgeon Green, of the 24th Massachusetts Regiment.

To the Surgeon-General.

{ CAMP FOSTER, NEAR ANNAPOLIS, MD.,
December 29th, 1861.

SIR,—I have the honor to report that the sanitary condition of the 24th Regiment is remarkably good. We have now been encamped two weeks in this place, distant two miles from Annapolis, in the immediate vicinity of ten other regiments. Our camp is situated on an elevated plain, commanding a fine prospect, and to a certain extent overlooking the town. Fortunately, the weather has been fine, it having rained but one day since our arrival. The nights are rather cold, though we do not suffer. The tents are all provided with stoves, which keep the men comfortable. The hospital, consisting of two large wall tents joined together, is situated on the right of the line, a short distance from the Field and Staff. The floor is well boarded, and it is heated by a stove. The largest number of patients at any one time in the hospital, has been four. The average daily number sick in quarters, has been twelve or fifteen. These are principally slight bronchitic affections and rheumatic pains in some parts of the body. Occasionally a case of minor surgery presents itself. All who are marked *excused* at surgeon's call are reported *sick in quarters*. Our third hospital tent is pitched at right angles with the south end of the hospital, and is used as an apothecary shop. It is here that Dr. Curtis and myself receive our morning visitors, who are escorted hither by the first sergeants of their respective companies, at surgeon's call. They bring a list of the sick, and against their names is written whether fit for duty or excused. Thirty or forty usually present themselves in this manner, though the number varies, depending somewhat on the weather. Of these, about a dozen are excused. As yet, we have not had any cases of measles, but as it is prevailing in the immediate neighborhood, we cannot much longer remain free from it.

On Thursday last, I was ordered to take charge of the Division Hospital, where the more serious cases are sent from the various camps. We have about fifty patients there at present, including twenty cases of measles. It is found rather difficult to treat successfully certain diseases in tents. Rheumatic complaints, especially, are rather obstinate when treated under canvas.

Last night, or rather early this morning, the various surgeons of this Division were aroused from their slumbers by an order that all sick in hospital or quarters should be ready to be removed this morning at nine o'clock on board of the hospital ship, which is to accompany the expedition. The ship (?) is a large schooner fitted up for the occasion, and capable of carrying more than four hundred persons, with good accommodations. It is intended to carry in this vessel only those whose illness is of a light character, and the convalescing. Those seriously ill will be left at Annapolis, to follow at some future day. From this order one would infer that the expedition would sail very soon, and that General Burnside did not intend to be delayed by the sick. As a consequence, our regimental hospitals are entirely empty.

Of the Assistant Surgeon, Dr. Curtis, I can only say that he is remarkably attentive to the wants of the sick, and that his services are of great value.

Yours, &c.,

SAMUEL A. GREEN,
Surgeon 24th Reg't Mass. Vols.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, JANUARY 16, 1862.

FREE CITY HOSPITAL.—Since the first proposition for a City Hospital, in 1849, by the gentlemen who had charge of the temporary hospital for cholera, on Fort Hill, and to whom the want was forcibly suggested by the many applications there for patients with other diseases, the project has not been lost sight of by its friends, but has gradually grown in importance, and has steadily gained in favor with the profession and the public.

In 1857 the subject was formally brought to the notice of the City Government by Alderman (now Mayor) Wightman, in an able report, the result of which was the purchase of the building originally constructed for a lying-in hospital, on Springfield St. For various reasons, this was never occupied, and was subsequently re-sold.

In February, 1860, Dr. Clark, at the request of Mayor Lincoln, transmitted to the City Council a definite "plan for a Free City Hospital, with suggestions as to its location, structure, organization and support." This was accompanied with engraved diagrams of ground plans, and also with designs for the various buildings. It is not necessary here to go into the details of the plan for its support and organization, but we will only refer to the classes of patients proposed to be provided for, because the present state of the enterprise seems to require it. These were:—

- | | |
|----------------------------------------------------------------------------|----------------------------------------|
| 1. Contagious diseases, smallpox, measles, &c. | } with separate wards
or buildings. |
| 2. Lying-in cases. | |
| 3. Consumption and chronic incurables. | } for both sexes. |
| 4. Delirium tremens, convulsions, and other cases from the station houses. | |
| 5. For cholera and other epidemics. | |

This paper was referred to a joint standing committee of the City Council. In the winter of 1861, this committee, having taken various opinions on the subject, and having satisfied themselves of its importance and utility, advertised for plans, offering a premium of \$300 for the best. Sixteen or seventeen, of various degrees of merit, several of them very elaborate and beautiful, were presented. That from the office of Mr. Bryant, and now understood to have been designed and planned by the late City Physician, obtained the premium offered by the committee, and, in an elaborate report, accompanied with plans and elevations, by the chairman, Thos. C. Amory, Esq., was recommended to the Council for adoption, with a request for an appropriation of \$100,000, the amount estimated as necessary to construct the main building and two pavilions of the six or eight the lot would accommodate. The report was accepted, the plans adopted, the money unanimously voted, and the Hospital Committee, in conjunction with the Building Committee, directed to proceed in its erection. Up to this period, the Consulting Physicians and various other gentlemen, some of them connected with the public institutions of the City, were freely and often consulted.

The friends of the enterprise, having watched its progress up to this point, congratulated themselves that it was "*au fait accompli*," and that we should have, what had been so long needed, a hospital, in whose unpretending but numerous pavilions the sick, now unprovided for in any existing institutions, would be comfortably but economically supported and treated. But, alas! as if no plan of this sort, however well prepared, could escape the fate which usually befalls all city buildings, it has been spoiled by the *unadvised* acts of the committee, who have, by various means, been induced to adopt a *new* plan, which, while it leaves out of sight the most important wants of the institution, and while it very much limits the useful accommodation of the lot and the building, excluding contagious diseases and lying-in cases, will cost more than double that of the original plan. We therefore hope that the matter will be a subject of investigation in the City Council, and that the profession will take so much interest in it as to express their opinions to such of the members of the Council as they can influence, to prevent the consummation of a project which, in its present form, seems intended "to furnish a pleasant resort for trustees and committees, rather than for the accommodation of patients."

INFLUENCE OF THE POSITION OF ANIMALS UNDER THE EFFECTS OF ETHER.—*Messrs. Editors*,—Since the publication of my Manual of Etherization, I have had an opportunity of learning some additional facts in relation to the influence of the position of animals while under the effects of ether. Dr. Petrie had urged the importance of position in the administration of chloroform, and I had done so with regard to etherization, so far as concerns the human subject. Subsequently, I had occasion to converse with a very intelligent and skilful veterinary surgeon, who resides near Boston (Dr. A. B. Wilton, of Dorchester), from whom I obtained the results of his extensive experience in operating upon domestic animals, under the influence of ether.

He informed me, that if a horse is etherized and laid on his back, with his nose up, he will certainly die, owing to the falling back of the tongue, and the consequent pressing down of the epiglottis, so as to produce suffocation. He mentioned four instances, in which he had witnessed the death of horses, during the operation of castration, from the effects of ether and the above-named position. His experience with ether had also proved that death from it never takes place if the horse is laid on his side, with his nose horizontal. His experience has also been extended to the etherization of cows, particularly in cases where mechanical aid was required in removal of the calf, and he has never lost one of them from the effects of ether. When he has had occasion to kill useless horses or dogs, he has made use of ether, aided by the position named, and he says that they die easily, without a struggle—asphyxia resulting from closing of the glottis during the anæsthetic state. These facts corroborate those observed on the human subject by Dr. Petrie, of Liverpool. See *Braithwaite's Retrospect*, Part xliii., p. 275.

Boston, January 11th, 1862.

C. T. JACKSON.

QUININE IN THE DROPSY OF SCARLATINA.—Dr. Hamburger has given this drug in forty-seven cases, and in forty-four improvement took place at once or in a very few days; in three cases only was there no change either for better or worse. The effects observed were, a dimi-

nution of the febrile symptoms of the subacute period, increase of the urinary secretion, which became more clear, absorption of the effused fluid, even the resolution of abscesses already formed, return of appetite and strength. The urine, nevertheless, continued to be albuminous for some time, but this was no obstacle to the progress of convalescence.

According to the summary which Dr. H. gives of his observations, it is in the chronic form of scarlatinous dropsy that the action of quinine gives the best results, and is manifested with the greatest rapidity; in cases of this kind improvement commences almost immediately after the first doses. At the commencement, so long as the acute period continues, the employment of quinine may be deferred for a few days, unless the danger is imminent.

On many occasions, Dr. Hamburger has seen the condition of the patient remain the same for many days, or to be gradually growing worse, the urine becoming very dark, and the dropsy increasing. The quinine was then given boldly, and a happy result was the consequence. If a marked improvement is not manifested at the end of three or four days, the remedy must be dropped; but even in this case it should not be regarded as entirely useless, for it seems to act upon the specific character of the disease.

The dose to be given is from half a grain to two grains, twice a day, for children, and three or four grains for adults. During the use of the quinine the diet should be carefully watched, great care being taken to avoid over-tasking the very irritable alimentary canal by overloading it with food or drink.—*Gaz. des Hop.*, from the *Brit. Med. Jour.*

THE *Gazette des Hopitaux* publishes an extract from a letter from Tours which says, "in the month of September, 1860, the Prefect of Indre and Loire requested the physicians of the General Hospital of Tours to permit a certain number of the sick of that establishment to be treated by a new method of curing asthma, discovered by a lady, a pupil of the Imperial School of Midwifery, at Paris. This treatment, which consists principally in the application of the tincture of iodine to the chest of the patient, aided by a sort of kneading process, produced a decided relief in every case; in many instances, according to our correspondent, complete cures, lasting for more than a year, had been obtained.

"If this success continues, it will be a real service rendered to so numerous a class as the asthmatics, by the inventor of this process, who, besides, makes no secret of its mode of application."

ÆGOPHONY: ITS SIGNIFICANCE.—M. Landouzy, in a letter on this subject, published in the *Gazette des Hopitaux* of Nov. 12th, 1861, says: "Autopsies of patients who presented this sign, thoracentesis, repeated examinations of cases of pleurisy of every type, have proved to me that ægophony neither announces the existence of an effusion, nor its amount, nor its limits; but only a condensation of the pulmonary tissue, analogous to that which produces bronchophony."

In the JOURNAL for Dec. 26th it was erroneously stated that Dr. J. H. Warren went from Massachusetts as surgeon to one of our regiments. We are requested to correct the mistake, and to state that he was first appointed Brigade Surgeon, and was afterwards assigned as such to Casey's Division, where he now holds the post mentioned in the previous notice.

M. CHASSAGNY, of Lyons, has proposed an ingeniously constructed amygdalotome, resembling Fahrenstock's instrument. The straight fork is replaced by horizontal hooks, which draw the hypertrophied gland into the ring of the guillotine. That it is now and then very difficult to get the tonsil into the ring, every operating surgeon knows.—*London Lancet*.

MISCELLANEOUS.—The highest temperature, last summer, in Great Britain, at any of the sixty stations from which the Registrar-General receives returns, was 89°.5. Last year the highest was 81°; in 1858, 97°.—Dr. J. I. Rooker states, in the last number of the *Cincinnati Lancet and Observer*, that a patient on whom he performed double castration, a year ago, for epilepsy and masturbation, has improved very much in health, and he is well pleased with the result.—Dr. E. M. Snow, City Registrar of Providence, R. I., publishes a complete table of deaths and their causes during the last year in that city. The whole number of deaths was 1051; last year, 1001; average for five years, 981. Population of the city in 1860, 50,666. Ratio of deaths last year, 1 in 48.2.—Rye charcoal is said to be much used in Paris as a tooth-powder.—An association, called the Army Medical Society, has been formed at Cairo, Illinois, composed of the Surgeons and Assistant Surgeons of the various regiments and hospitals at that place, at Bird's Point and Mound City. A meeting is held once a week, when papers are read, and matters connected with army surgery discussed.—The fatal cases of scarlatina in London for the week ending Nov. 2d, were 94; of diphtheria, 18; whooping cough, 35.—Dr. Neligan has resigned the editorship of the *Dublin Quarterly Journal of Med. Science*, and is succeeded by Dr. George H. Kidd.—Hon. William Appleton, of this city, has made a recent donation of \$10,000 to the Mass. General Hospital, to be added to former donations by himself and others (making \$30,000 in the aggregate), for the purpose of enabling patients to remain a longer time in the hospital when necessary for a more complete cure.—The number of sick in the Potomac army hospitals continues, it is said, gradually to increase, the unfavorable season, probably, being the cause. The latest official reports show 1,197 sick soldiers, of whom 487 are in the General Hospital at Alexandria. There are 83 in the Eruptive Disease Hospital at Kalorama.—On the last day of November there were reported, at Fortress Monroe, 12,213 enlisted men, and 498 officers. There were 4009 cases treated during the month; of these 166 were sent to the General Hospital, 2820 were returned to duty, 19 received furlough, 75 were discharged from service, 1 deserted, and 38 died. There remained sick, 375, and 519 convalescent. Of the sick, 365 were cases of diarrhœa.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 11th, 1862.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	41	37	78
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	41.2	37.5	78.7
Average corrected to increased population, . . . . .	..	..	87.78
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
8	0	1	3	4	0	0	1	1

COMMUNICATIONS RECEIVED.—On the prevention of Consumption.

DIED.—In this city, 7th inst., Dr. John B. Bridgman, aged 58 years.—In Shrewsbury, Jan. 12th, John E. Hathaway, M.D., 34.

DEATHS IN BOSTON for the week ending Saturday noon, January 11th, 78. Males, 41—Females, 37.—Accident, 2—apoplexy, 2—congestion of the brain, 1—inflammation of the brain, 1—bronchitis, 4—cancer, 4—chlorosis, 1—consumption, 8—convulsions, 4—croup, 1—debility, 3—diarrhœa, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 5—epistaxis, 1—intermittent fever, 1—scarlet fever, 3—typhoid fever, 1—hæmoptysis, 1—disease of the heart, 2—infantile diseases, 5—congestion of the lungs, 2—gangrene of the lungs, 1—inflammation of the lungs, 4—marasmus, 1—old age, 1—paralysis, 2—pleurisy, 2—premature birth, 3—suicide, 1—unknown, 6—whooping cough, 2.

Under 5 years of age, 37—between 5 and 20 years, 5—between 20 and 40 years, 9—between 40 and 60 years, 13—above 60 years, 14. Born in the United States, 60—Ireland, 15—other places, 3.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, JANUARY 23, 1862.

No. 25.

CASE OF CYNANCHE PAROTIDÆA, WITH METASTASIS.

BY E. A. W. HARLOW, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

THE patient, aged 25, informs me that when he was about 12 years old, while on horseback, the horse leaped over a fence, by which his left testicle was jammed against the back of the animal, and became so tender and swollen that he could not walk for three weeks, and it was three months before the soreness entirely left it. Since then, that testicle has always been "a little larger and softer than natural"; otherwise it has been as well as ever.

He also states that, at the age of 19, he had the mumps, for so the physician who attended him pronounced his complaint; and there were cases of that disorder in the neighborhood at the time. The left side of the face was swollen, and pained by the movements of the lower jaw. When the swelling was nearly gone, the left testicle (the one that seven years before had been injured by the leap of the horse) began to enlarge and be painful, and continued to increase in size till it was three or four inches in length, and of proportionate thickness. The disease gradually went away, leaving the testicle as well as before the attack.

Such is his history, as given by himself, prior to his recent illness, during which I attended him. His wife says that a child was convalescent of mumps in the same house when his late sickness began. I found the parotid gland of the right side enlarged. Soon the disease invaded that of the left side, without diminution, however, of the first tumefaction. Next, it affected the brain, producing much constitutional disturbance. The patient had chills, a pulse of 100, a white tongue, with a brown streak covering its centre (just such a tongue as we sometimes see in typhoid fever), and suffered with intense headache and inability to sleep at night. The disease next assailed the right testis (not the one hurt by the horse), which afforded immediate relief to the head, the pulse falling to 72. This gland reached about the same dimensions as the

other testis in the former seizure. No further metastasis occurred. The testicle returned to its normal size, and the patient got entirely well.

Here, then, is a case in which it appears that a person had *cynanche partoidæa* twice, with metastasis each time—metastasis in the first attack to one testicle, and in the second to the other.

THE MECHANICAL DISTORTIONS OF THE HUMAN FOOT; THEIR PREVENTION AND REMEDIES.

BY J. C. PLUMER, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

FROM the almost universally distorted condition of the adult human foot, it is evident that the very important subject of a proper *foot covering* has been too long confided, either to a class of persons who regard the boot or shoe only as an article of merchandise, the "*manufacturer*," or to individual measure workmen (so-called "*custom makers*"), too generally the most essentially uneducated and unthinking of all classes of artisans.

With the *manufacturer*, remarkable as it may appear, it is customary to prepare the "*upper*" of a boot or shoe more particularly with reference to economy of material, so that a given amount of surface of leather will "*cut*" the greatest number of "*uppers*." This done, the next step is so to fashion a block of wood, the last, that it shall, in the parlance of the trade, "*fit the stock*"; that is, that the last *which is to give form* to the boot or shoe moulded upon it, shall be so far adapted to the *formless* "*upper*," as to require as little time and effort as possible of the workman in "*lasting*" the boot or shoe.

The result of this unscientific procedure is a *conical leather* bag; and fortunate would it be, not only for feet, but health and well-being in many other respects, if these leather receptacles were as well adapted to their intended use as the wooden boxes in which they are thrown into the market. Instead of which, however, each boot or shoe thus produced is an instrument of torture, and too frequently of actual distortion, the effects of which no human public can withstand, and, after years of suffering in attempts at "*breaking in*" such absurd contrivances, till our feet are maimed and distorted, till "*ready-made*" boots are no longer endurable, we apply to the "*measure workman*," who at once remarks that "*ye 'ave an odd foot*," "*ye 'ave an 'ard foot to fit*," and with gravity as mysterious as his ignorance of what he *ought* to do is palpable, he proceeds to "*fit the foot*." Here is a great mistake at the commencement. A foot already distorted by previously wearing badly-constructed boots, should *not* be "*fitted*" in the sense in which the shoemaker regards it. There is, of course, no impropriety in adapting the boot or shoe, in every particular, to the

normal or *undistorted* foot; but if, through certain mechanical agencies, the foot may be, or has already become, distorted, it is fair to suppose that by the same agencies, differently applied, such distortions may be prevented or corrected. No surgeon, after dividing the fasciæ and tendons in club foot, would make use of a shoe "fitted to the foot."

Inasmuch as shoemakers usually have no knowledge whatever of the solid structure of the normal human foot, and especially as the majority of feet presented to the "measure workman" are already more or less distorted, so that he can derive no idea of what the *form* of the natural foot *should be*, the proper course for both—manufacturer and "measure workman"—is to adopt a model derived from a natural foot; and with reference to the accomplishment of this, the following suggestions and illustrations are presented.

Hitherto, evidently for *facility of manufacture*, it has been the universal custom to form the soles of boots and shoes upon a last having a transversely *convex* under surface. A vertical transverse section of such a last, at a point corresponding with the metatarsophalangeal articulations, is represented in Fig. 1.

Fig. 1.



1. This convexity produces a corresponding concavity upon the *upper* surface of the *boot-sole*, while its *under* or *outer* surface is convex, as represented in Fig. 2, a vertical transverse section of boot or shoe at the same point as in Fig. 1—S the sole. This concave or guttering *sole* is diametrically opposed to the *naturally* concave under surface of this portion of the sole of the foot, as seen in Fig. 3, representing the combined sections of the foot and shoe, at the same point indicated above. B B B B B, metatarsal bones. In this case the points of bearing and pressure of the foot upon the boot-sole are at the joints, J J, while the only bearing point of the sole upon the floor, E E, is at the central line S, the concave *sole* opposed to the concave under surface of the foot—forming an ellipsis, represented by the lines l l and L L. The immediate effect upon this portion of the foot, the transverse arch, of wearing soles so formed, is the production of painful callosities beneath the first and fifth joints, and a feeling of tension between them. The remote, but no less certain effect upon this portion of the foot, especially if of delicate construction, of attempting to "break in" desirably thick soles, is a *depression of the transverse arch*, formed by this row of joints, in which case this part of the foot becomes curved or rounded on the *under* surface. This affection I have frequently met with during the past three years, devoted exclusively to experiments and observations on pedal distortions.

Fig. 2.



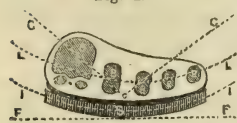
Fig. 3.



Fig. 4 represents a vertical transverse section of the foot dis-

torted as above, and its *unnatural* adjustment to the common concave sole, the distorting instrument. It will be observed in this

Fig. 4.



figure, that the line L L is inverted and parallel with that of l l. Distortions of this nature to the degree indicated above are prevalent only among persons of about 60 years of age, arising, no doubt, from wearing fashionable shoes thirty or forty years since, when the last used in their construction was extremely convex or rounded on the under surface, producing a sole with concavity in corresponding degree. In such instances this portion of the foot has become rigid and unyielding, and is ordinarily associated with subluxation of the great toe-joint, consequent, in a great degree, upon wearing the old-style pointed shoe.

Individuals with this distortion are noticeable from a peculiar inelastic unsteadiness of gait, leaning forward with legs semi-flexed, shoulders drooping, and treading heavily upon the heels; pain and tenderness being indicated at every step. Walking being tedious, and locomotion accomplished only by a partial and constrained action of the muscular structure of the lower limbs, atrophy or a stunted development is an unavoidable consequence.

That these conditions of the feet and lower limbs, and their concomitant miseries, in the form of gout,* bunions, &c., may in all instances be prevented, and corrected in many already existing,

* The translator of Professor Meyer's pamphlet remarks in his preface: "There is one other subject of which I am anxious to say a few words; I refer to the remarks on gout, at page 16 of the text. In a country where gout is so common as in our own, these remarks will be apt to be passed over as entirely fanciful, and without attracting the attention they deserve. Nevertheless, it is certain that the almost universal occurrence of first attacks of gout in the joint at the ball of the great toe may be fairly attributable to the existence of a *locus minoris resistentie*. Boerhaave, Van Swieten, Sir Charles Scudamore, and many other more recent authorities, were fully aware of this; but no one urges it more strongly than Dr. Garrod, the latest and best authority on this disease, who, at page 49 of his excellent treatise (London, 1859) says that, 'after accidents, and like causes, weakened parts are more susceptible to its influence,' and then mentions cases in which first attacks, instead of appearing in the usual seat, were limited to the knee or other parts that had suffered from previous injuries. At page 354, he remarks, that 'the metatarso-phalangeal joint is one which is subject to pressure and injury from having to support the weight of the body,' and he adds, thereby affording impartial evidence as to the evil effects of an improperly shaped shoe, that he has, in many individuals who had never experienced any symptoms of gout, 'very commonly found distinct evidence of injury on the surface of the cartilage, both of the head of the metatarsal bone and of the cup-like cavity of the phalanx.' All this clearly points to a weakened part, and the merit of our author is in directing attention to the true cause of its production, for the metatarso-phalangeal joint is *not*, as Dr. Garrod says, actually injured by having to support the weight of the body, but by its having to do so in a constrained and unnatural position."

The following are the remarks of Prof. Meyer referred to above:—

"Not less important are the evils arising at the root of the great toe from the same cause. It has already been stated that the pressure of the upper leather pushes the point of the great toe against the smaller toes. The joint at the metatarsal bone thus becomes bent aside, so that it forms a protuberance on the inner side of the foot. If the point of the toe is now pressed against the ground in walking, this protuberance must be made still greater, and so pressed more forcibly against the upper leather. At the same time, moreover, the great transverse wrinkle in the upper leather—the result of the bending of the toes—presses directly on the same point; and the protuberance at the root of the toe is thus constantly subjected to a two-fold and very injurious pressure. In these circumstances it is by no means wonderful that this joint becomes subject to continual inflammation, which, by extending to the bones, must, in this situation, produce permanent and painful swellings, which become in their turn, and even from slight causes, the source of inflammations and new growths of bone.

"In this manner arise those unseemly and painful swellings at the root of the great toe, which, either from mistaking their true nature or from wilful deception, are called *chilblains* or *gout*, just as the one or the other term appears the more interesting. In many cases, moreover, this kind of inflammation of the bones, and their investing membrane, may lead to the formation of matter, and eventually to the disease known as caries or ulceration of the bone.

"In connection with this I wish to explain, that I by no means desire to question the existence of such inflammations of this joint as are commonly attributed to gout; in by the far the greater number of cases, however, inflammation of the metatarso-phalangeal joint of the great toe is traumatic, as above described; and even with regard to the occurrence of gouty inflammations, the causes above alluded to give an obvious reason for the formation, at the points indicated, of a *locus minoris resistentie*."

by wearing a properly-constructed foot covering, is very evident, and the requirements are quite simple, and as follows:—Let the longitudinal contour or outline of the last, upon which the boot or shoe is to be formed, represent the outline of the *foot* in the *position which it is to assume when in the boot*; and so long as all are determined to wear heels (of the propriety of which, or whether or not they are a necessity of civilization and pavements, we have at present nothing to say), this position will be with the *heel of the foot elevated*, hence the “heel seat” of the last should be elevated to the same degree, and should also be *advanced* towards the ball portion of the last; in other words, the “*shank*” of the last should be shortened, which will produce a corresponding shortening in the shank of the boot. The mistake in measuring the foot in one position, *flat*, while it is to assume another when in the boot, *the heel elevated*, is clearly demonstrated by standing barefoot upon the floor with the heel pressed against an upright, and then, making the ball of the foot the fixed point, raising the heel sufficiently to introduce between it and the floor, a block of the thickness of an ordinary boot heel. The heel of the foot will *recede* from the upright, showing the measurement of an adult foot, from heel to ball, less by about half an inch than when the foot is resting flat upon the floor, or workman’s “*size-stitch*.” A shoe-last formed upon this theory will be considerably shorter from heel to ball portion, as also will the boot made upon it, which is important in its relation to the *longitudinal* arch of the foot, since it changes the position of the foot heel, advancing it more directly under the line of the tibia, relieving the arch from excessive strain.

In regard to that portion of the sole which is beneath the ball or palm of the foot, while it should be sufficiently thick to afford protection from the *roughness* of, and as *flat* transversely on the *outer* surface as, the *artificially* flat surfaces upon which we are accustomed to tread, let the *upper* surface of the sole be *concavo-convex*, so formed as to be the counterpart of, and adapt itself to the sole of the *undistorted* foot. There will be produced a firm and well-adjusted protection to the sole of the foot against the rough and uneven sidewalk, floor or earth; in fine, a boot-sole which requires no “breaking in,” and which therefore cannot distort the foot. A boot-sole thus formed, presents, when *new*, all the depressions, which are most obvious and palpable, upon the upper surface of a boot-sole which has been worn for several weeks, and are produced by the pressure of the under surface of the toe joints.

To secure a boot-sole with the above characteristics, it is requisite that that portion of the last upon which it is formed should be directly opposed to that of those in common use. It should be *concave* on the bottom instead of *convex*, and the *form* and *degree* of concavity is important. “It is not sufficient that the horse’s shoe be *curved* instead of *square*, but it is important that the curve be adapted in *form* and *degree* to that of the hoof. Neither is it

sufficient in making a shoe for the *human foot*, that the last on which it is fashioned be simply *concave on the under surface*, the *form* and *degree* of concavity is no less important to the production of a properly-formed *sole*. Fig. 5 represents a vertical transverse section

Fig. 5.



tion of a last properly formed on that portion corresponding to the "ball" of the foot. Fig. 6 represents a section, as above, of a properly-constructed sole from the last

Fig. 6.



as above represented. "Fig. 7 represents a vertical

Fig. 7.



transverse section of the natural foot near the metatarso-phalangeal articulations, or *transverse arch*. B, bony structure; lines *a a* show the arched form of this portion of the

Fig. 8.



foot. Fig. 8 demonstrates the adaptation of the boot-sole (S), transversely convex on its upper surface, to this part of the undistorted foot, affording uniform support, and preventing callosities upon and distortion of the joints.

"It is neither requisite nor desirable that they should be especially made for each individual. Different *styles* are made to represent the different styles of feet, from which an intelligent craftsman is expected to make a proper selection. The *styles* of feet are as susceptible of classification as those of *person*, and there is no reason why a ready-made boot or shoe should not be as well adapted to its purpose as a ready-made coat."

DR. COALE'S ESSAY ON ANEURISM.

(TREATMENT.—Continued from page 417.)

Ligature.—We have already sketched the history of the use of ligatures to arrest the flow of blood. They are now so much the daily resort of every surgeon, so perfectly familiar in their application, to every tyro in surgery, that in treating of them as a remedy for aneurism we scarcely know how much we ought to say of them; how far we ought to enter into details, and how much is so familiar as to make it unnecessary to repeat.

It is, however, so often the case that the pages of our Journals, and even those of works called standard, exhibit propositions and theories long since tried and found wanting, but renewed again in the ignorance of the writer—that we feel we can with profit review the records of surgery for the past fifty years, and set forth one or two points connected with ligature.

The first of these which has engaged the attention of surgeons greatly, is the question how tightly a ligature should be drawn. We have already given Scarpa's views on this subject, and described his suggestion of the mediate ligature having some soft substance interposed between the artery and the ligating thread.

Next—a question closely connected with the other—is, how broad or narrow should the ligature be. Both of these may, however, be comprised under one, viz., What immediate effect do we look for from the ligature—or rather, in accomplishing its end of rendering the artery permanently impervious, through what processes does it attain this end?

The first surgeon who set himself experimentally to enlighten us on these points was Dr. J. F. D. Jones, an edition of whose researches was published in Philadelphia in 1811. This work we have not been able to see, but the results he attained are given to us in many other works, and we can briefly quote them here as furnished us by Lisfranc.

1st, When any force is used in constricting an artery by ligature, the inner and middle tunics are ruptured, and the cellular brought into contact with itself all around.

2d, In spite of the rupture of these coats, the vessel is not distended.

3d, Soon after the application of the ligature the parts become inflamed, lymph is effused, and the divided surfaces are glued together.

4th, In most cases the blood forms a clot, gradually increasing and presenting an elongated cone, the apex extending along the artery towards the heart.

Jones does not attach so much importance to this clot as some others do. He thinks that the obliteration of the vessels depends upon the agglutination of the several parts, but late investigations show that true organization occurs in this clot, and that vascular union takes place between it and the walls of the artery.

5th, The cellular tunic becomes agglutinated by inflammation.

6th, The ligature left in place causes an ulceration through the parts around which it has been carried.

7th, The vessel is not only stopped up at the point of ligature, but becomes impervious to the next collateral branch.

Manec and Scarpa both verified these results, and they may be relied upon for all practical purposes. With them in view, comes the question what sized ligature should be used. Scarpa opposed fine ones for fear of their cutting the artery through too soon, and adopted, as we have shown, his plan of immediate compression. Jameson, of Baltimore, was even fearful of embarrassing the vasa vasorum which he considered necessary to form lymph, and used broad ligatures, taking care not to draw them too tightly.

From this extreme, others went to the opposite—using very fine ligatures on purpose to cut through more readily the two inner tunics. Amussat went into further trials, and elicited the fact that every ligature that constricted the artery sufficiently divided the inner tunics—the fine ones with neatness and sharp edges—the coarse ones producing a ragged, uneven edge at the section. He found also that these edges turned up into the artery for a line or

two, the clot commencing its formation between them and the cellular tunic on which its base is planted. The rupture of these tunics then was considered by him the important point—a conclusion, we believe, admitted to this day, and with this view ligatures are used which, without being so fine as to cut through too rapidly, are sufficiently so to produce the desired effect upon the inner tunics.

The choice of substances for ligatures was another point greatly discussed by surgeons, and scarcely settled even in the present day, unless we can call it settled that within certain limits each operator may use what he likes best, or at least take choice of some half dozen different materials. As specimens, Ruysch advocated strips of leather; Physick used twisted buckskin; Weitch, Lawrence and Delpech, fine silk; Wardrop, silk-worm gut; Cooper, catgut; Jameson, flat strips of buckskin not previously stretched. Metallic ligatures have also been suggested. An advantage was claimed for animal ligatures, that they could be cut off close and the wound healed by first intention—the ligature being absorbed. This undoubtedly would be a very great advantage in every case, but particularly when operating upon the deep cavities; unfortunately it cannot be depended upon, and we presume that in the present day no surgeon would so close a wound and run the risk of a subsequent abscess excited by the foreign substance of the ligature. The various advantages claimed for these several substances being shown illusory, they have been one after another thrown aside, and silk is now used almost without exception—having, for its excellence, strength, cleanliness and pliability. Having tied the constricting knot, one end of the ligature is cut off and the other left hanging out of the wound until the artery is completely divided, when the string is drawn out.

It is universally conceded now, that in cases where the ligature is resorted to, but one is necessary or desirable. We would scarce think it necessary to enunciate a so thoroughly and well accepted truth as this, but even in late days a resort to the old plan of two ligatures and dividing the artery between them has been urged by most respectable authority. Abernethy advised this, from observing that secondary hæmorrhage was much more frequent in aneurism than in amputation, and he thought that by dividing the artery it was reduced to the same condition in which it was after the latter operation. The reasoning was fallacious, and the actual practice proved in several instances very dangerous.

We do not think it our province to enumerate the instruments required in placing a ligature upon an artery, or to describe the operation in detail. These belong to elementary surgery. There are, however, several rules which we must lay down—some applicable to ligating of arteries generally, others more particularly of importance when using the ligature for aneurism. The first of these is, that the incision should be no larger than is absolutely

necessary to reach the vessel; the next, that the sheath of this should be separated from it and that the neighboring parts should be disturbed as little as possible. With these precautions the operation, as such, is not a grave one, that is, as regards the amount of cutting; and the organ meddled with is seldom followed by evil consequences from the *immediate* effect either of the knife or the ligature, and this last is an efficient means of arresting the circulation in, and producing the obliteration of, the artery. But this is not all we must have a care for. In using the ligature as a remedy for aneurism, other considerations, some of them of great importance, come into play. The first of these is the relative position of the ligature with regard to the distance of the next branch above it. A certain space is absolutely necessary in which the blood may become arrested and stagnate, in order that a proper coagulum may be formed. If this space is too shallow, either the blood will not remain at rest long enough for it to coagulate, or when the coagulum is formed it will be washed out and the artery not be obliterated. The result, of course, will be hæmorrhage as soon as the ligature has cut through. In guarding against such an event, our anatomical knowledge will serve us to a certain extent, and must in certain cases forbid us at once to use this remedy; but when we take into consideration the number of anomalies in the distribution of the arteries, we must see that there will occasionally be a want of success from this cause, in the application of a ligature, that no human care, knowledge or foresight could have guarded against; and hence, one objection to the use of, or rather defect in the excellence of the ligature as a remedial agent. Another accident from the irregular distribution of the arteries is, that in applying a ligature at a distance from an aneurism, which is sometimes absolutely necessary, we may apply it not upon the vessel from which the aneurism springs, but upon an anomalous branch. Thus we have seen the external iliac bifurcate directly below Poupart's ligament, and sending one of its branches down the front of the thigh it was lost above the knee, in the parts immediately around that joint, while the other, getting over to the inner side of the thigh, became the popliteal artery, on which an aneurism might have existed. Of course, in this case, in cutting for the femoral artery it would have been to all appearances found in its proper place, and yet a ligature upon it there would still have left a popliteal aneurism unaffected. These anomalies, too, have as yet not been entirely developed to us even by the investigations of modern anatomy, as thorough as these are; we cannot, therefore, be assured from any previous experience that the next essay may not be attended with some mishap from some as yet unknown, and therefore unprovided for anomaly.

There are some arteries, too, that from their normal length must, in every instance, forbid an operation upon them; or at least, if such an operation is undertaken as a last and only resort, must

prevent us from expecting much success from it. Thus we have the arteria innominata—according to Dr. N. R. Smith, of an average length of one and a quarter inches. If a portion of this is already occupied by an aneurism, too little, evidently, would be left us around which we could pass a ligature in any hope that, with the large and rapid current of the aorta rushing by in such proximity, any coagulum could be formed—or, having been formed, could remain long enough to plug up the artery permanently, and ensure us against hæmorrhage. We might say the same of the common iliac arteries in the vast majority of cases. The vessel is longer, and the neighboring current not so fierce, but still an average course of less than three inches, if occupied much above its distal end with an aneurism of any size, would, and often has, by actual experiment, shown that we can hope but little from the effects of a ligature placed upon it. Such are the anatomical obstacles to the success of the ligature; there are still others.

A morbid condition of the artery at the point at which it is desirable to apply the ligature must peremptorily forbid it. Should we find the coats of the vessels permeated with an atheromatous, cartilaginous or bony deposit; should it present that yellow color which is always accompanied by a friable condition; or should it exhibit, as it does sometimes, evidences of tubercular or of fatty degeneration, we must discard the application of the ligature. In brief, it is an essential condition before tying it, that the artery should be healthy.

Having thus pointed out the drawbacks to the use of the ligature, we must try to estimate its value.

Costello remarks, "There is indeed no operation which, if properly executed, is followed with more certain success than that of obliterating an arterial trunk by the application of a single ligature." This is undoubtedly true to a certain extent, but rather strongly put. The actual operation of cutting down upon an artery—even when a deep-seated one—is not formidable, and we do not remember a case where mishap has come from it. Mr. Syme says he has tied the femoral artery twenty times successfully. The danger is not there, but elsewhere. It is in the accidents abovementioned, or in the morbid condition liable to be met with in an artery operated on for aneurism. There is also something to be placed to account of the disturbance of the circulation by the arrest of the flow in an artery. Where the artery is small, there is no sensible effect produced; but where it is large—supplying an important portion of the system—or where it is near the centre of the circulation, we must look for serious results from this source. The immediate effect upon the tumor is to stop the pulsation of it, and next a diminution of its bulk, while the collateral branches of the vessel tied become turgid, pulsate violently, and in time become permanently enlarged so as to supply the parts formerly furnished by the artery tied. The limb previously nou-

rished by a ligated artery becomes cold very soon after tightening the ligature, and remains so for three or four hours, when usually its wonted warmth is restored to it, and by the ready adaptation of the collateral branches to the new demands upon them, suffers no further in this way. In some cases, however, this is not so, but the circulation remains enfeebled, and seems unable to support the life of the part, when gangrene ensues. When no accident of this sort occurs, we may with confidence assert that no damage is done to the usefulness and efficiency of a limb by the application of a ligature to the artery supplying it. Before six months elapse, saving exceptional cases, no difference exists between the limb operated upon and the other.

The accident following the application of a ligature, most to be apprehended and most dangerous, is hæmorrhage. This may be the result of one of the mishaps abovementioned, abnormal or diseased condition of the artery, or it may be caused by an ugly condition of the wound made to tie the artery. This may ulcerate or slough, the artery participate in the diseased action, the ligature come away, and hæmorrhage follow from the still patulous extremity of the vessel.

[To be continued.]

Army Medical Intelligence.

[The following interesting communication from Dr. Peters, U. S. Surgeon at Fort Warren, to his friend Dr. Dale, has been given us for publication.]

REPORT OF CASES (AND REMARKS ON THEM) TREATED AT FORT WARREN,

DEAR DOCTOR,—At your solicitation, I herewith enclose to you a table of diseases treated at this hospital, during the months of November and December, 1861. The maladies enumerated in the accompanying list have occurred mostly among the prisoners of war, brought from the South, and who consequently were unacclimated.

It may perhaps be interesting for me to here make a few general remarks in connection with the table, as the result of my observation, in treating a body of men differing greatly both in physical and personal appearance. The dread at the approach of cold weather was universal among the prisoners, and I am not sure but that its onset was mentally a relief to them. Through various sources, but mainly through the charitably-disposed people of Boston and its vicinity, they are greatly indebted for a supply of warm clothing, and also for other solid comforts. Indeed, everything humanity could dictate has been done to make their imprisonment free from barbarity, and I know they have learned a lesson therefrom which will not soon be forgotten. The question may be asked, why, then, has sickness prevailed to such an extent among them? The answer can be readily given, by one who has observed their want of attention to the most ordinary rules of hygiene, and also their disinclination to take out-door exercise in the

ample limits allowed them. In a measure, no doubt, their natural fear of cold weather has had some effect in keeping them housed. Certainly the cause does not rest either in their rations or their quarters, for no difference in these respects has been permitted to exist between them and the regular soldiers acting as their guard.

In recording the diseases incidental to these prisoners, care has been taken not to include mild cases, such as result from indigestion, tonsillitis, pharyngitis and common colds, where simple remedies given once or twice produced permanent cures. In a majority of the fever patients, a malarious tendency, which they had transported from the South, could be readily detected. Its pernicious influence on the liver and spleen was too evident to escape observation. The most serious case of disease of the former organ which has yet come under my notice, was that of Lt. ———, an officer captured at Hatteras. The patient was seized one night, after having retired, with obstinate vomiting; the material first ejected was ordinary chyle, which soon changed to bile, mingled more or less with mucus. There chanced to be in the same room an experienced physician (also a prisoner), who gave prompt attention to the sufferer, and in time succeeded in arresting the vomiting. The following day I saw the patient, and asked him to give me a history of his symptoms. He said "that gradually since his confinement he had been growing ill, and had himself noticed, that sometimes his skin was tinged yellow, but he regarded it as an ordinary case of jaundice, which he was accustomed to, and which heretofore he had removed by taking Epsom salts, but in this attack the medicine failed even to evacuate his bowels."

On examining the case, I found the pulse ranging between 90 and 100; its beat was regular, and was not easily compressed. The tongue presented a deep-red tip and edges, while the papillæ of its middle portion were covered with a dry, thick, brownish coating. Pressure made by the hand over the right hypochondriac region, revealed the fact that the lower margin of the liver protruded beyond its normal position, and at the same time this pressure caused the patient to wince. The skin was jaundiced, and to the touch it was unusually hot and dry. On inquiry, no satisfactory reply could be obtained in regard to the bowels, save the fact that they had been recently very irregular.

In the commencement of the treatment of the case, a purgative dose of calomel, combined with pulv. jalap. comp., was given. The object of thoroughly opening the bowels having been attained, alterative doses of calomel and quinine were substituted. In addition to the above, a large blister was applied over the right side of the abdomen, and the diet was regulated. As the patient complained of great thirst, the effervescing mixture was given to allay it, and for the same purpose he was ordered to swallow occasionally small pieces of ice.

Under this regimen and treatment, the case progressed favorably for several days. Suddenly, and without any visible cause, the symptoms assumed a serious aspect, and gave reason for alarm. The pulse was greatly accelerated and of small volume, and this, together with the blanched surface and loss of strength, indicated rapid prostration. Desiring to give the patient all the medical light at my command, I called in two physicians, who had seen extensive practice in the South. Although prisoners, they willingly came to the rescue, and together we proceeded to examine the case. The result of the consultation was, that we decided the disease to be bilious remittent fever,

and that in every way it resembled that form of the malady, which is seen in the South. It was further agreed, that though the malaria lurked in the system and might never have caused sickness at home, yet in changing climate it had been induced to make its appearance in this form of fever. The prognosis arrived at was unfavorable; still, it was thought best to continue the calomel and quinine, give stimulants, and use every effort in the patient's behalf. In the course of a few hours, the case passed beyond hope, as the pulse ceased at the wrist, the extremities became cold, suppression of the urine ensued, and, with unimpaired intellect, he sank and died.

The inference to my mind, drawn from this and other cases, that have here come under my observation, is that a person in exchanging his native, for another climate, may carry with him malaria, which needs only an exciting cause, like a variation of temperature, to produce either fever or inflammation of some of the viscera.

In glancing over the accompanying table of disease, it will be seen that there are recorded a considerable proportion of bronchial and pulmonary affections. The difference in this respect between the prisoners thus affected and the United States forces used as their guard, was not so marked as to draw attention. I must candidly confess that I anticipated more sickness from these affections than has yet occurred to the prisoners. It must be remembered that this island is exposed to furious gales from the ocean, and its northern latitude warrants the statement of its being extremely cold in winter, yet we see men brought from the South, confined on it, and not to a remarkable degree laboring under diseases of the chest.

Medical writers have given the name of nostalgia to a species of melancholy, to which prisoners are especially liable. In my limited experience I have found it a serious complication in slow fevers, and tending to cause cases of this kind to terminate fatally. It varies with the natural disposition of the individual, and it is modified by age. The young person, when suffering from this affection, is apt to give free vent to his feelings by weeping, and there are but few of the great human family who have not in early life felt its baneful influence. My attention was one day drawn to a boy prisoner, occupying one of the beds of the Hospital, who, in addition to a slight remittent fever, was evidently undergoing great mental trouble. On inquiry, I ascertained the fact, that day and night he was continually weeping, and he confessed to me, he was longing for his home. The only recourse left me was, to promise him that on recovery he would be exchanged, and, fortunately, I was enabled to carry out my obligation. The prisoners who have reached and passed puberty, bear their sorrows with more manliness; yet, in many cases, disease softens their wonted courage, and the eye readily traces on their features unmistakable symptoms of melancholy.

The following case exhibits how serious may be the results of nostalgia in middle life:—viz., a prisoner, one day, was brought to the Hospital bordering on a state of collapse. He was pulseless, pale, emaciated, had cold extremities, was unable to speak, and nearly exhausted. The history of the case, as nearly as could be ascertained, was that the man had been recently captured in Virginia. He was described as being a quiet farmer at home, who had been taken from his plough and forced to serve in the ranks of the enemy. In his first engagement he was captured, and soon afterwards, with others, was

brought to this Fort for safe keeping. After his arrival he became melancholic, and refused to associate or even converse with his companions. By them he was neglected, and this tended to act on his mind to such a degree that finally he declined to eat sufficient food to sustain life. The man eventually became so weak from fasting, that one day he fell down exhausted, and this so startled his fellow prisoners, that they concluded to bring him to the Hospital. The expression the patient wore on his face when admitted under my care, was that of intense dejection, such as is seldom seen except in asylums for the insane. On being placed in bed, brandy and carb. ammonia, together with beef tea, were administered per rectum, as the patient had lost the power of deglutition. Under judicious treatment and nursing, the functions of the body returned, so that in the course of three weeks he was able to walk about the ward, by the aid of an assistant. During the slow progress of the convalescence, the patient complained of a continuous and dull pain in the forehead, which required and was relieved by a series of blisters applied to the nape of the neck. The most obstinate symptom in the treatment of the case was a persistency to constipation of the bowels; the milder cathartics were impotent, but when, at last, regular doses of croton oil were given, it was found they could be properly regulated. In this manner, with a due regard paid to building up the patient, by tonics and a generous diet, he eventually regained his lost strength. On the other hand, it is to be regretted that his mind remains up to this day unbalanced, without presenting the least hope of future returning reason. Prison life affords little opportunity for agreeable recreation or associations, hence the present war must claim this man as one of its victims.

The annexed table fairly exhibits the forms and the ratio of the diseases that prevailed in this garrison during the two months before named, but since that time nearly three hundred prisoners have been exchanged, and as the remainder have become acclimated, their chances for health have measurably increased. D. C. PETERS,

Fort Warren, Boston Harbor, Jan. 17th, 1862.

Assist. Surgeon U. S. A.

CASES TREATED BY DR. D. C. PETERS, ASS'T SURGEON U. S. ARMY, FORT WARREN, DURING THE MONTHS OF NOVEMBER AND DECEMBER, 1861.

SPECIFIC DISEASES.	Nov.		Dec.		SPECIFIC DISEASES.	Nov.		Dec.	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.
Febris intermittens quotidiana	5	0	1	0	Bro't forward	170	3	150	1
" remittens	5	0	0	0	Gonorrhoea	0	0	1	0
" typhoides	24	2	13	1	Syphilis Consecutiva	1	0	1	0
Colica	0	0	2	0	Lumbago	1	0	0	0
Constipatio	9	0	22	0	Rheumatismus acutus	8	0	7	0
Diarrhoea acuta	15	0	13	0	Abscessus	0	0	1	0
Dyspepsia	2	0	1	0	Anthrax	1	0	1	0
Hepatitis acuta	1	0	3	0	Phlegmon	0	0	1	0
Icterus	1	0	0	0	Ulcus	0	0	4	0
Parotitis	82	0	34	0	Ambustio	0	0	1	0
Tonsillitis	2	0	0	0	Contusio	0	0	4	0
Bronchitis acuta	13	0	21	0	Sub-luxatio	0	0	5	0
" chronica	2	0	0	0	Ophthalmia	3	0	2	0
Catarrhus	1	0	32	0	Otorrhoea	4	0	1	0
Phthisis pulmonalis	2	0	1	0	Debilitas	4	0	0	0
Pleuritis	0	0	2	0	Morbi cutis	22	0	2	0
Pneumonia	6	1	2	0	Nostalgia	1	0	0	0
Epilepsia	0	0	1	0	Toxicum	0	0	1	0
Neuralgia	0	0	2	0	Morbi varii	9	0	7	0
Carry forward	170	3	150	1	Total	224	3	189	1

Recapitulation.—Total number treated during November and December, 413; number cured (or benefited by medicine), 386; died, 4; number remaining sick on the 1st of January, 1862, 23.

Total number of prisoners of war held at Fort Warren during the months of November and December, 629.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 23, 1862.

STATE ALMSHOUSE AT BRIDGEWATER—EIGHTH ANNUAL REPORT OF THE INSPECTORS.—Through the politeness of the Resident Physician of this institution, Dr. S. H. Carney, we have received the Annual Report of the Inspectors for the year ending Sept. 30th, 1861, and we find it to contain much interesting information. Judging from the statements it contains, there is every reason to believe that its condition is as favorable as could be expected, when we consider what a mass of poverty and wretchedness is collected within its walls. The amount of labor necessary to bring to a system of decent living many of the outcasts who there find a refuge, must be very great, but the report furnishes palpable evidence that it is successful. We had an opportunity, several years since, of visiting this institution, and, although it was at that time susceptible of much improvement in some of its internal arrangements, we could not but be struck with the amount of comfort afforded to its unfortunate inmates. The food supplied was not only generous in quantity but most excellent in quality, and had none of the character of the stinted dole which one is apt to attach to the idea of a State charity; while the supply of clothing and the warmth of the various apartments were all that could be desired. The official nature of the charity, too, did not seem to deprive it of that element of sympathy which adds such a blessing to private bounty, and there was evidence of a personal interest in the inmates, and a reciprocity of kindly feeling between the inspectors and immediate officers of the establishment and the objects of their care, which was highly gratifying. We have heard that some of the evils at that time existing, in the way of overcrowding in some of the hospital departments, &c., have since been remedied. Running over the report for the past year, we see that “until within the previous six months, a very large proportion of the applicants for admission to the almshouse were sadly diseased when received. Since that period, a much smaller number than usual of sick and diseased persons had been sent there.”

It is to be regretted that as yet the institution is burdened with a large number of “demented, idiotic, and partially insane persons,” who are obviously quite out of place. Notwithstanding the urgent representations of the Inspectors to this effect, as well as a report from a Committee of the Governor’s Council, more than a hundred of its residents are of this class, and must be a very serious and uncomfortable charge to the officers, unprovided as they are with suitable accommodations for their proper care and treatment. We hope this evil may be promptly corrected.

We are pleased to see that the intellectual wants of the many children

who find a home here are not neglected. Two schools are in active operation, taught by young ladies, and the Inspectors testify to their most gratifying condition, as comparing well with that of the common public schools throughout the State. The condition of the buildings, the farm, and the stock, belonging to the Almshouse, are all favorably noticed in the report.

From the summary of inmates we learn that there were

"In the house October 1, 1860, 480; admitted during the year, 1,512; in the house during the year, 1,992; discharged and returned, 1,099; died, 129; remaining October 1, 1861, 764. Men, 169; women, 262; boys, 203; girls, 130. Average through the year, 631. Whole amount expended for the institution from October 1st, 1860, to October 1st, 1861, \$35,065.60."

From the physician's report we find that

"The number of males admitted to the hospital was 425; females, 361; total, 786. Discharged, 548. Remaining, Sept. 30, 1861, 110. Whole number receiving medical aid during the year, 1,060. The number of deaths during the year was as follows:—males, 62; females, 67; total, 129. Number of births:—males, 25; females, 24; stillborn (sex not recorded), 5; total, 54."

The mortality cannot be regarded as high when we consider that many of the inmates of the institution seek it as a refuge for their last hours, when almost worn out with incurable disease and want. Consumption alone caused 55 deaths. We have not space to copy, in detail, as we should like to do, the tables of the different diseases treated and of those terminating fatally. They present very gratifying evidence of the skill and fidelity of the Resident Physician. We cannot forbear to quote, however, the concluding passages of his modest statement:—

"In presenting the above report, I am happy to state that, during the past year, the sanitary condition of the institution has been as good as could be expected. There has been no serious epidemic since the last report. Scarlet fever made its appearance April 12th, but soon disappeared. Cholera infantum, a disease which has prevailed to a great extent throughout the State the past summer, has not yet appeared here. Considering the large number of children who have been admitted to the institution during the year, many of whom had been previously exposed to unhealthy influences, an *entire* exemption from the disease is remarkable. This is due, however, in a great measure, to the habits of cleanliness enforced, as well as to regular diet and pure air, and not to medical treatment.

"One hundred and five cases of ophthalmia have been admitted to the hospitals, very few of which have resisted treatment immediately, when seen at the onset of the disease; the most obstinate cases being those which had existed for weeks and months previous to the patient's entrance to the institution, and in persons of intemperate habits with scrofulous diatheses.

"In conclusion, I believe that the wishes of the Commonwealth have been faithfully regarded in providing for her poor and incurably diseased a comfortable home where they can spend the remainder of their days, and where they can receive such relief as each individual case admits."

A short report from the Chaplain of the institution testifies to his deep interest in the spiritual welfare of his charge, particularly of the children. Our conclusion from the whole document is, that the Almshouse is in faithful hands, and is doing a good work as an almoner of public charity worthy a Christian Commonwealth.

We should be glad to receive the reports of the other State Almshouses and public institutions, which we understand have been distributed, but which, with the exception of that of the State Prison, have not reached us.

MESSRS. EDITORS,—The following case (meningitis?) may be of some interest to your readers. December 26th ult., 1 o'clock, A.M., called to see an infant 3½ months old, who presented the following symptoms:—Surface of body cool; nares pinched; eyes staring, pupils sensible to light; tongue cool, and one half of it, with right half of the face, affected by spasmodic twitchings; pulse 85; respiration 70; feet cool; abdomen tympanitic. An enema of soap suds brought away a stringy stool; when the bowels moved, vomiting occurred, which relieved the rapid respiration. Ordered the following: *R.* Mist. assafœtidæ, spir. lavendulæ comp., tr. castorei, aa ʒi.; syr. simplicis, ʒij. *M.* And *R.* Pulv. podophyllin, gr. ij.; pulv. aromat., gr. ij.; hyd. chl. mit., gr. ij. *M.* Ft. ch. No. iv. One powder to be given in half an hour, to be followed by one teaspoonful of the first mixture: repeat every hour until spasmodic action ceased.

Visit at 9, A.M.—Patient had had four spasms of right side of face, lasting ten minutes each; a free defecation of dark-colored, stringy fæces; slight increase of tonsils in size and redness; prostration, with coolness. Recommended frictions with mustard water to back of head, spine and feet. *Syr. lactucarii* (French preparation), one drachm to be given every hour until three doses were taken. A dose of castor oil to be given at noon.

27th.—Tongue and fauces of a drab color, dry—the former flattened on top, pressed downwards; six spasms since last visit; pupil of right eye contracted to the size of a pin—left dilated to one fourth of an inch; thumbs drawn to palms of hands; wakefulness; fontanelle even with surrounding surface. Twenty drops of fluid extract of valerian to be added to the syrup of lactucarium; repeat every hour till sleep supervene.

Visit at 1 o'clock, P.M.—Patient has had two short naps of fifteen minutes each; symptoms of the same kind, but much worse than at last visit. Requested to have Dr. Storer called, who was engaged, and could not come.

At the visit at 7, P.M., there was difficulty of deglutition; turning of head sideways and backwards; pupils insensible to light; spasms continued; much prostration, with symptoms of approaching dissolution. Patient fell into a slumber during this visit. Recommended to let her sleep as long as she would.

28th.—Spasms changed to left side of face; slept until 12 o'clock, midnight: afterwards awoke four times, with either a spasm or scream. Beef-tea to be given for prostration. Frictions to be continued.

29th.—Symptoms improving. Slept well during the night.

30th.—Much improvement. Ordered the following: *R.* *Syr. sarsaparil. c.*, ʒij.; *potassii iodidi*, gr. xvi. ʒss. to be given morning and night.

31st.—Everything favorable.

Jan. 2, 1862.—Patient discharged well, but cross.

Is a change of spasms, or of paralysis, favorable? Are not wakefulness and an absence of febrile symptoms unusual? Please comment upon this case.

South Boston, Jan. 6th, 1862.

Yours, &c.

J. F. GOULD.

Our correspondent requests us to comment upon his case, and we would therefore say, that we see no reason to regard it as one of meningitis. On the other hand, it seems to us very plainly to have been a case of infantile convulsions, sympathetic with or the result of reflex action from some local irritation, probably gastric or intestinal. The distended abdomen and rapid respiration resulting from it would seem to point to the latter cause. Nothing is said about the condition of the gums as bearing upon the question of irritation from teeth; although the age of the child would hardly lead us to expect this, still it might exist. We are decidedly of opinion that a good dose of castor oil, followed by a positive opiate, would have put an end to the symptoms in a comparatively short time. It is possible that irritation of the alimentary canal may have been caused by something in the food of the mother, which had had an unfavorable effect on her digestion, or some other agency acting directly on her nervous system. Dr. Gould will find an excellent *résumé* of the symptoms growing out

of inflammatory affections of the brain and its membranes in children, by Dr. Cotting, in the *JOURNAL* of the 19th ultimo.

EXPERIMENTS ON SLOW OR CHRONIC POISONING.—Dr. George Harley, Professor of Medical Jurisprudence in University College, London, read a paper, in November, before the Royal Medical and Chirurgical Society, on the subject of slow or chronic poisoning. The symptoms, in cases of this kind, so closely resemble those met with in natural disease, and are so different from those shown in acute poisoning, that the subject is one of great importance. The author has, for the last two years, instituted various experiments on animals, with small doses of poison slowly administered. Other mineral poisons had been used, but his remarks on this occasion referred only to arsenic. These experiments extended from twenty-five minutes in one case, to various longer periods reaching to over eighty days in another case. In the shortest, one grain of common arsenic injected into the jugular vein of a cat, caused convulsions in three minutes, and death in twenty-five. In the longest, the dose was gradually increased from a quarter of a grain to one grain—forty-nine grains being taken—and at death the effects of chronic poisoning, as shown by drawings exhibited of the *post-mortem* appearances, were very striking. The direct action of arsenic on the blood was also investigated by Dr. H., and the conclusions drawn from all his researches are summed up as follows:—

- 1st. That arsenic has a specific action on the digestive canal.
- 2d. That the action of arsenic on the digestive canal is manifested irrespectively of its mode of administration.
- 3d. That the direct contact-action of arsenic with the mucous membrane is slight in comparison to the influence it exerts through the blood.
- 4th. That the symptoms manifested during life, as well as the morbid changes found after death, differ very materially in the acute and chronic forms of poisoning.
- 5th. That whereas in the acute form of poisoning the morbid changes are most marked at the cardiac end of the stomach, in the chronic form they are most visible towards the pyloric extremity.
- 6th. The more gradual the poisoning, the more manifest is the action of the poison on the intestines, and the less visible are its effects on the stomach.
- 7th. Death may occur from arsenic so rapidly that no apparent structural change has time to take place.
- 8th. That the immunity from symptoms of poisoning enjoyed by arsenic-eaters most probably arises from their taking the substance in a solid form, and consequently that but a very small portion of what is swallowed enters the circulation.
- 9th. That the beneficial effects of small doses of arsenic are due to the power it possesses of diminishing tissue-change by its peculiar action on the blood.
- 10th. That the prejudicial effects of arsenic, when taken in excess, are due to its destroying the property possessed by the constituents of the blood of combining with oxygen, and thereby becoming fitted for the purposes of nutrition.

Dr. Marcet, a member of the Society, alluded to the effects of the long-continued use of preparations of iodine, and to the opinion of Rilliet, of Geneva, that very minute doses of iodine may, if continued, produce morbid effects. Dr. R., he said, also mentions the circumstance of individuals residing in Geneva being affected, on visiting the sea-shore, with symptoms of poisoning by iodine, which he accounts for by the fact that the air in the former place contains no iodine, while that near the sea-coast is iodized. Dr. Marcet likewise alluded to the circumstance of his once having a dog-kennel lined with sheet lead, and the dogs which were put into it having invariably been

seized, in ten days or a fortnight, with the epileptic form of poisoning by lead. A layer of straw over the leaden floor at once put a stop to the poisoning.

IN a recent communication to the French Academy of Medicine, by M. Piorry, on the treatment of phthisis, he presents the following summary of conclusions:—

1st. Pulmonary phthisis is a collection of numerous morbid phenomena, and not a morbid unit.

2d. There does not exist, nor can there be, a special or specific remedy for it, to destroy a unit which has no existence.

3d. That consequently iodine, tincture of iodine, no more than chlorine, salt, tar, can be considered as anti-phthisical.

4th. That it is necessary, in order to the proper treatment of phthisical persons, to appreciate, to specify the particular organic affections which they present, and to meet them with appropriate remedies.

5th. That hygienic precautions, intelligently advised, may prevent the development of tubercle.

6th. That by proceeding in this way, by combating the particular affections which occur together or succeed each other, we have a rational treatment of phthisis, which can show a fair number of perfect cures, and a very large number of palliated cases.

DR. JOHN E. HATHAWAY.—The death of this very estimable young physician will be sincerely regretted by all who knew him. During the time that he was connected with the Mass. Gen. Hospital, in this city, he performed his duties most faithfully, and so courteously that he was always a favorite; his pleasant manners were the natural result of his warm social feelings and a fine temper. After graduating here, he pursued his profession for some years in Worcester, and his successful and increasing business showed how he was appreciated by the public; his popularity with the profession there being what might have been expected. His friends will remember a lawsuit that was forced upon him, and from which he came out with flying colors; Judge Merrick paying him, in his charge to the jury, a high and well-deserved compliment. He had everything about him to make his life a happy one, and it was sad to see the inroads of a disease that was sure in his case to go on to a fatal termination; it being some years since he showed the first signs of consumption, against which he bore up with remarkable fortitude and cheerfulness. A visit to Europe was of little or no advantage to him, and he subsequently removed to Shrewsbury, where he patiently waited his end. If he was beloved and respected by the community and his professional brethren, how dear must his memory be to those who were nearest to him; and, on the other hand, how proud must they be of the reputation he has left behind him.

IN answer to the inquiries which have been made of us as to the authorship of the letters from "Our Special Correspondent" at Washington, we are authorized to state that they are from Mr. Edward R. Hutchins, Medical Cadet in the United States Army. He proposes to continue his favors from time to time, under his own signature; and these, together with the interesting letters which may occasionally be expected from Prof. Bryan, Dr. Geo. B. Willson, some of our own Massachusetts surgeons, and others, will make our "Army Medical Intelligence" probably more full and valuable than can be found elsewhere. It is unnecessary to direct the reader's attention to the interesting letter of Dr. Peters in to-day's JOURNAL.

CAMP BENTON, JAN. 11, 1862.

MESSRS. EDITORS,—It was with great chagrin and mortification that I saw published in your JOURNAL a letter from myself to Dr. Henry A. Martin, of Roxbury. That letter was strictly confidential. I hereby disclaim all responsibility for its publication and for its contents. I am, Gentlemen, respectfully,

Your obedient servant,

NATHAN HAYWARD.

Surgeon 20th Reg't Mass. Vols.

CREAM AS A SUBSTITUTE FOR COD-LIVER OIL.—M. Fonssagrives strongly recommends, in the *Bulletin de Thérapeutique*, cream as a substitute for cod-liver oil in cases where the latter cannot be borne on the stomach. The dose for children is four teaspoonfuls at first, to be subsequently increased. It is to be taken undiluted, and sweetened or flavored with vanilla, which renders it more digestible. In England, it is taken with a little rum.

CHLORATE OF POTASH AS A REMEDY FOR FÆTID BREATH.—Many persons complain of fætid breath who cannot attribute it to bad teeth or neglect to keep them clean; the gums and mucous membrane of the mouth are perfectly healthy. The bad odor must come either from the lungs or the stomach, and nine times out of ten it comes from the latter. In this case we have a simple, prompt and certain remedy in the chlorate of potash. Take, three hours after eating, a teaspoonful of a solution of six grammes of the chlorate in a hundred of sweetened water, and at the same time rinse the mouth with the solution.—*Gaz. des Hop.*

DR. GURDON BUCK has resigned the post of Surgeon to the New York Eye Infirmary, and Dr. F. J. Bumstead, late Assistant Surgeon, has been appointed to fill the vacancy.

DURING the year 1861, 1,256 persons received the benefits of the Brooklyn City Hospital, with the following results:—Cured, 672; relieved, 220; discharged at their own request, 50; disorderly or eloped, 120; died, 70; number remaining, 124. The number who paid, wholly or in part, was 1,038; wholly charity, 218; males, 1,177; females, 79. Of the 70 deaths, 37 were Coroner's cases (accidents), leaving the actual number of deaths by disease 33.—*American Medical Times.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 18th, 1862.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	47	38	85
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	36.6	37.7	74.3
Average corrected to increased population, . . . . .	..	..	82.88
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
19	0	3	6	3	0	0	3	2

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending Jan. 11th.

Mean height of Barometer,	29.892	Highest point of Thermometer,	43.0
Highest point of Barometer,	30.510	Lowest point of Thermometer,	1.0
Lowest point of Barometer,	29.470	General direction of Wind,	W.N.W.
Mean Temperature,	22.1	Am't of Rain (inches),	0.00

For the week ending Jan. 4th, omitted in our last issue:—Mean of barometer, 29.747; highest point of barometer, 30.042; lowest point of barometer, 29.160. Mean of thermometer, 20°; highest point of thermometer, 49°; lowest point of thermometer, 5°. General direction of wind, N. W. Amount of rain (in inches), 0.

TO CORRESPONDENTS.—The conclusion of Dr. Ware's Tenth Lecture will be inserted next week. A paper by I. S. on Conservative Surgery, and letters from the Army by Drs. Bryan and Willson, came too late for this number.

PAMPHLETS RECEIVED.—Annual Report of the Board of Trustees of the Wisconsin State Hospital for the Insane.—Report of a Committee of the Sanitary Commission, on the subject of Venereal Diseases, with special reference to Practice in the Army and Navy.—Eighth Registration Report of the State of Rhode Island, for the year 1860.—Annual Report of the Inspectors of the Massachusetts State Prison.

DEATHS IN BOSTON for the week ending Saturday noon, January 18th. 85 Males, 47—Females, 38.—Abscess (of throat), 1—accident, 3—apoplexy, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 1—consumption, 19—convulsions, 1—croup, 3—cyanosis, 1—diphtheria, 2—dropsy of the brain, 5—exposure, 1—scarlet fever, 6—typhoid fever, 3—gastritis, 1—hemoptysis, 1—hæmorrhage (of the navel), 1—disease of the heart, 4—intemperance, 3—disease of the lungs, 2—inflammation of the lungs, 3—marasmus, 3—paralysis, 1—phlebitis, 1—puerperal disease, 2—purpura hæmorrhagica, 1—rheumatism, 1—sore throat, 1—teething, 1—trismus nascentium, 1—unknown, 7—whooping cough, 2.

Under 5 years of age, 37—between 5 and 20 years, 10—between 20 and 40 years, 17—between 40 and 60 years, 15—above 60 years, 6. Born in the United States, 66—Ireland, 13—other places, 6.

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No. 26.

CONSERVATIVE SURGERY.

[Communicated for the Boston Medical and Surgical Journal.]

ROBERT LISTON, in his Lectures on Surgery, used to show to the students a chisel and mallet as instruments used in amputations in Germany and the Low Countries, remarking, however, that no one in England would submit to such a procedure. Modern Yankee invention has substituted for the chisel an instrument superior to it in the number of amputations it can perform at one stroke, but which was originally intended for the cutting of hay, so that amputation of fingers by the hay-cutter, though it can hardly yet be claimed as an improvement, is at least an innovation in surgery that is frequently borne, notwithstanding the dislike to such procedures, which is probably no less in Americans than in the English.

The art of surgery has assumed as a postulate that the section of limbs and members should be so made as to allow the bone to be readily covered by the soft parts. This is so generally understood, that few or none of the modern works on surgery declare it. They give ample directions how to do it, assuming its necessity, but do not find it essential to assert the principle. From this position probably arises that prejudice against the chisel and hay-cutter operation, which, as at the time of the Professor, undoubtedly still exists. I shall venture, in this communication, to assert, not that this rapid mode of operating is preferable to that usually laid down in the books, but that like *Mercutio's* wound "'tis enough! 'twill serve," and especially that having been "done quickly" it is "well done" and does not require any farther operation.

These unexpected amputations by hay-cutters occur quite frequently in the country, and it is well worth while to determine the best mode of dressing them. Most of the cases are those of children, who, curiously examining the action of the machine, are accidentally caught by it, and it will be observed generally that, as the patient of course endeavors to pull away his hand at the moment he finds it caught, the skin and pulp of the fingers are drawn for-

ward over the bone at the instant of the division, and the bone is thus left even with, or slightly protruding beyond the flesh.

Now, leaving the question, whether or no it be advisable to apply again the amputated portions in the hope that they may grow on, supposing the surgeon to have lost them or to deem it inadvisable to try to make them adhere, how shall he dress the stumps? Plainly enough, according to every stereotyped law in surgery, and perhaps to every scientific surgeon, by cutting off a little more of the already too short members, to wit, the bones, so that the flesh can easily cover them. Now this course I claim, although entirely *secundum artem* and bookish, is unnecessary, and therefore improper. The better one, as leading to equally good use of the parts subsequently, and saving more of the finger, is simply to remove any lacerated portion, if there be such, and then to apply a simple dressing, without making any attempt to procure union by first intention, but with a view to let the wound throw out granulations sufficient to cover, eventually, the exposed bone, which will invariably take place. This mode, of course, involves a greater length of time in healing than is required under the other process when union by first intention takes place, but the latter happy accident is so rare that it can never be reasonably expected, and the wound ordinarily goes through the same slow process of supuration and granulation under either plan of treatment.

This saving of a bit more or less of the finger may be thought a very trivial matter, but in those cases where, as in children, the bones are very short, the removal of the portion necessary to allow them to be covered by the soft parts, often compels one to remove a part of the next phalanx, thus involving the loss of a joint, which is certainly no small thing; add to which, the important fact that you avoid what seems to the little patient and his family a frightful surgical operation, and there would seem to be ample reason for adopting the simpler proceeding.

No claim to originality in this matter is put forth, as I have found, upon inquiry, that many other practitioners have adopted the same course, and with invariable success; all agreeing that an untoward result, such as recovery with a protruding bone or an unserviceable finger, has not yet been seen. Nor has this fortunate result occurred in cases only where, the amputation having been done by a sharp instrument, the end of the bone protrudes but little. The same treatment has been adopted in cases where the finger has been "jammed" off, by being caught in machinery or anything of the kind, and the bone left exposed for perhaps half the length of the phalanx, or even more; in all such cases, and I have seen several, the recovery has been not less complete and satisfactory.

I have spoken of the result as being always satisfactory, yet two cases occur to me in which it was not so much so as could be desired; the first, that of a laborer, whose two amputated phalan-

ges were dressed, as stated above, with simple cold-water dressings, and who the next day found his way into the Mass. General Hospital, where *active* interference was deemed necessary, and the ends of the bones were removed by the surgeon; the other, of a boy, the end of whose finger was jammed off whilst coasting, by being caught between the sled-runner and a tree, and which was dressed like the other, and a favorable prognosis given. Things went on as usual till the third day, when the lad was taken to town to a surgeon, who considered it a grave case, and of course amputated again. It is needless to say, that in these cases the result was eminently unsatisfactory, both parties having regarded me since then "*torvo oculo et hostili*," evidently thinking me inadequate to the care of such important cases.

Were it not for those cases, and the fact that since then I have seen a surgeon, in a public institution, in what seemed to me a cruel, because unnecessary operation, remove a considerable part of the phalangeal extremities from a girl who had already had the ill-luck to lose part of them in a hay-cutter, this article would not have been written, as I had supposed that Common Sense had gotten the better of Science on this point. But there is, it seems, one more lesson to be learned in conservative surgery, so that hay-cutters may not, finding their work carried to a greater extent by the surgeon, consider themselves as having his moral support, and the community may not look upon the surgeon as a hay-and-finger-cutter on a larger scale.

J. S.

Jamaica Plain, January, 1862.

DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE X.—(Concluded from page 499.)

THE remarks that have been made on certain states of the skin, naturally bring us to the subject of animal heat, the variations of which are chiefly connected with the skin and its sensations, whilst the influence of cold on these variations and consequently on the production, phenomena and course of disease, is constantly to be taken into view in its treatment. Although it is universally conceded that exposure in various ways to external temperature, is one of the most efficient causes of disturbances of the health, we know very little of the laws according to which this takes place. In common opinion nothing is regarded as more certain than that disease is constantly produced, and that the symptoms of disease are constantly modified, by what is familiarly spoken of as "taking cold." Yet almost no exact knowledge is possessed of the mode in which this effect is brought about, or of the conditions of the body itself, or of the external agents on which it is supposed to depend. The common notions so confidently entertained concerning the whole matter afford us one of the most remarkable of the exam-

ples, only too common, in which we mistake the habitual use of certain forms of expression, which have become familiar, but to which we attach no definite idea, for a clear comprehension of the subject to which they relate.

The easy solution thus resorted to for the purpose of explaining the effects of "taking cold," is used on occasions of the most opposite kinds, and for very different diseases. It is employed without at all understanding the manner in which the animal heat is modified by the circumstances of the exposure, or of the manner in which the modification operates to the production of disease. The most common idea is that we take cold by the withdrawal, in some way, of the heat of the body. Yet it is manifest that this withdrawal takes place in such a different manner, in such a different degree, and under such different conditions, that there can be no uniformity in its *modus operandi* as a cause. Whilst, on the one hand, the same disease is produced by very different modes of exposure, on the other, the same mode of exposure will in other cases produce very different forms of disease. Thus, in one case where cold is taken there has been but a momentary exposure of a small part of the body to a cause which can produce but a very slight loss of animal heat, as a draught of cold air; in another, a large quantity has been abstracted from the whole surface, as by remaining a long time in the water, or exposed to a high cold wind; in another case, no assignable impression of the kind has taken place at all, and yet, in each, disease has been produced. Colds, of apparently the same character, prevail under circumstances the most diverse, as in cold weather and warm weather, in dry weather and in damp, in uniform weather and in variable, in one kind of season and in its opposite.

The most reliable results we can extract from the vague mass of observation on this subject are, that sudden exposure, especially when the body has been much heated, the skin is in an excited state, and the body is insufficiently or less than habitually clothed, or when the weather has suddenly changed from warm to cold, or from cold to warm, is a condition under which the cases we attribute to cold are very likely to arise; that the gradual, and still more the rapid abstraction of large quantities of animal heat, however this is brought about, are also likely to produce disease, but in this case of a more deep-seated, continuous and obstinate character, though not always more violent; but that the most extensive, though less obvious injurious effects of cold are found among those who are exposed through long and inclement seasons, with deficient protection by habitations, clothing and fuel, especially among the young. It is to be observed, however, that there is no uniformity in the degree or kind of the effects which are thus produced, and that it is but a limited proportion of the persons exposed to these causes who are unfavorably affected by them. Hence we are obliged to infer that we can justly consider the dis-

turbance of the animal heat as constituting but one of the conditions upon which depends the origin of the diseases usually attributed to taking cold.

We are not likely, then, to derive any considerable aid in the direction of treatment from our knowledge of the connection of the scientific history of animal heat with the production of disease, and we are obliged to depend mainly on the teachings of observation and experiment. In the early stages of acute diseases there is usually some over-production or accumulation of animal heat; this, when excessive, causes no little suffering and restlessness; and many of the other troublesome symptoms of the febrile condition seem closely associated with it, such as headache, pains in the back and limbs, want of sleep, and thirst. Whether the accumulation of heat is the cause of these other symptoms or not, it is very certain that the alleviation of the heat of the skin by cool air, cool sponging, the application of cold cloths or ice to the parts most affected, and cool drinks, not only give relief to the sensation of heat, but tend also to mitigate the other febrile symptoms. How much this relief actually contributes to the removal of disease, we cannot say, but the quieting of pain and thirst and the production of sleep are always important objects to secure.

But throughout some acute diseases, and in the advanced stages of all, there is a diminished production of animal heat. Notwithstanding this, there may still remain a tendency to occasional exacerbations, but more limited in extent and continuance. In such cases the loss of heat becomes exhaustive, and should be guarded against by attention to food, clothing and the other hygienic conditions which will prevent this loss. The warmth of the body, as a whole, is to be watched and maintained. Yet there is in this state of things no inconsistency in the application of means for the relief of the temporary attacks of heat, locally or even generally. The main principle to be held in view is to prevent that general depression of the powers of the system which is so certainly the result of a permanent draught upon its efforts for keeping up the temperature of the body. The effects of this exhaustion are not always perceived by the sensation of cold, but often by a disturbance of some of the internal functions. Thus, a convalescent will experience a loss of appetite, headache, neuralgic pains, watchfulness, troublesome sleep, as well as other symptoms, from a considerable fall of temperature in his chamber, of which he is hardly sensible, but which a careful observation of the cause of the phenomena will satisfy the physician has been due to cold—not to taking cold in the ordinary sense of the word, but to the general depression of vital force due to its disproportioned expenditure in the maintenance of temperature. This especially manifests itself in organs which have been the subjects of the disease, and hence the great relief often experienced from the application of direct warmth, and also of extra clothing, to such parts.

Perhaps the most common mistake in attending to this point, is to overlook the necessity of the access of fresh air to sick rooms, and to endeavor to maintain their warmth mainly by keeping out cold air, instead of warming that which is introduced. Breathing cool, or even cold air, is seldom injurious, and carries off but little heat, where it is pure and fresh, if the body be surrounded by a sufficient amount of non-conductors to preserve that which is generated.

It is sometimes observed that the external surface of the body is cool, while the patient experiences the sensation of heat. This is often noticed in common cases in a slight degree, but in some violent diseases it is exhibited in a very striking degree. The skin of the patient is cold, even icy cold, but he seems to himself to be burning with intense heat. No external means will warm the body, except as it will warm a corpse; it even seems more difficult than this—and it becomes cold again, as soon as applications are suspended. There may be an occasional and limited flush of heat, but for the most, the coldness remains till death, when the case is fatal; but then, the surface, which could not be warmed from without, during life, becomes gradually warm from within; and, in some cases certainly, the internal viscera are found very warm, and even at a higher than the normal temperature, if the body be opened. In this singular state of things, most noticeable in cholera, it would seem as if the animal heat was prevented from diffusing itself during life by some modification of the law of conduction dependent upon the presence of vitality, but on the cessation of life is permitted to obey the ordinary conducting powers of the textures.

Every one acquainted with cholera has probably observed, in the collapse of this disease, how useless was the attempt so persistently made to make the patients warm by hot-air baths, hot sand, hot bricks, &c., and how much discomfort was occasioned by the attempt; whilst, on the other hand, how grateful to them was cold sponging, the administration and application of ice, and the free admission of cold air to the skin and lungs, and this although the breath was sometimes itself cool. May it not be that the relief thus experienced has some connection with that modification of the conducting powers of the textures just suggested as a probable explanation of those singular phenomena; and some indirect connection also with the familiar fact that persons or parts which have been chilled or frozen, are more speedily and safely relieved by cold applications than by warm. All such facts probably have a significant relation to the various phenomena of disease connected with cold and heat, and these sensations of the patient; and also with chilliness, shivering and ague turns, all of which are connected with these sensations, and with various disturbances of the nervous system.

In chronic diseases, the management in reference to animal heat enters more universally into the plan of treatment than in acute.

In acute it is rather incidental; in chronic it is fundamental. A due equilibrium between the production and transmission of heat is essential to the perfect performance of all those functions on which, as formerly stated, the processes of recovery depend. The regulation of all the habits of life as to clothing, habitations, artificial warmth, climate, exposure, air and exercise, have some connection with the maintenance of this equilibrium, and although in a state of health, and to a certain degree under disease, we can endure a certain amount of departure from it, yet, in proportion as disease is present, the capacity for this endurance is diminished, and it becomes important to prevent the unfavorable effects of it. In a majority of chronic diseases, the heat-making and cold-resisting capacity appears to be impaired, and since, partly as the consequence, exhaustion, debility, and a defect in the power of recovery are the prevailing tendencies of these diseases, the regulation of all the habits which relate to this point should be a constant subject of regard.

Under the ordinary exposure of mankind, even in the hottest climates, the current of heat is from within outward, and it rarely happens that we do not part with more heat than we receive. In some seasons and in some countries the quantity lost is small, and of course there must be a large check upon those vital operations by which heat is developed. This check, however, seems to be, taken alone, seldom injurious, and the diseases of hot climates, so far as we can refer them to the influence of accumulated heat, are few as compared with those of cold. It is notorious that hot climates and hot seasons are healthy, except so far as we can trace the origin of disease to causes generated by the action of heat upon substances outside of the human body. But it is not so with the influence of cold, for although many other causes co-operate with and intensify its agency, we yet know that by itself alone it deteriorates health and produces disease.

In managing most chronic diseases, therefore, it is the demand upon the body for its heat, and the necessity of arranging the habits of the patient with a view to this, that we have to consider. Not only the ordinary demand for the evolution of heat continues, but generally a diminished capacity exists for this evolution, and consequently a liability to be injured and exhausted by it, which does not exist in health. Doubtless there is a great difference in the power of different individuals in this respect, but there are few in whom the capacity for resisting cold is not diminished by all chronic disease. In practice, it is always safest to err on the side of too much precaution than too little, especially in the matter of clothing. Persons will often suffer in their sensations from too much, but rarely in their diseases.

This is true even of the general clothing of individuals in temperate climates in health; and I believe it to be a fact, and an important one, that the most common fault in such climates is to en-

deavor to get along with too little clothing, and that it is really a safer rule to wear as much clothing as we can bear without discomfort, than as little as we can without it. Doubtless there are individuals with regard to whom this is not true, and cases in which they are exhausted and debilitated by much clothing, whilst they are refreshed and invigorated by diminishing it. But this I am convinced, after long attention to the point, is rather exceptional, and yet frequent enough to make a due regard to it proper in every case. There are many general rules in practice, but no universal ones, and this is so here.

I can only now state this general principle of the sanative effects of preventing the dispersion of the animal heat. Its practical management runs out into so many details which require to be modified by constitution, circumstances of exposure, and character and stage of disease, that they must be left to the knowledge and good sense of each practitioner. The greatest error perhaps on this point arises from the disposition to substitute external warmth by artificial heat, and the exclusion of air and confinement within doors, for adequate clothing. The effect of this error is to deprive patients with chronic diseases, and even persons with simply feeble health, of the invigorating influence of external air. Bad and variable as our climate is, there are few individuals who may not, by the careful and gradual cultivation of the habit, acquire the power of going abroad in all seasons and almost all weathers, not only without danger but with positive benefit. More persons induce imperfect health by the habits of seclusion engendered by the fear of taking cold, than are actually injured by taking cold. No doubt an artificial state of the system in this particular is produced in many persons, and no sudden change of habit would be safe. Their management should be cautious and delicate, but there are probably few in whom the change might not be brought about. This is even true of a class of complaints—those of the throat and lungs—usually regarded as peculiarly liable to injury from exposure. The use of the respirator is especially valuable in such cases, and is almost universally sufficient to prevent injury. Even the irritating and harassing influence of the east winds of spring is thus signally mitigated. This instrument is also capable of performing an important office in husbanding the animal heat, and many persons are thus kept warm by it and secured from the influence of cold, by a much less amount of protection than would otherwise suffice.

The application of artificial heat to particular organs, and also the prevention of the escape of the natural heat from them, is often found of important aid in relieving many of the sensations of disease, and probably also in promoting their recovery. A diseased organ, as well as a diseased system, may be unfavorably affected by the exhaustion of its heat, and derive a consequent benefit by preventing it. I have already referred to the good effects of

guarding organs which have suffered from acute disease, or exposure during convalescence. The examples of a corresponding advantage to organs affected with chronic disease are even more numerous. Local pains, both rheumatic neuralgic and from chronic inflammation, affections of the kidneys, bowels and uterus, and many of the throat and lungs, furnish numerous examples of this sort.

It is obvious how many other particulars of treatment are suggested by these considerations, and yet how impracticable it is to enter into them in a consideration whose object is to illustrate merely the principles upon which treatment is to be conducted, and not to enter into a full account of its details.

Army Medical Intelligence.

QUALIFICATIONS AND DUTIES OF THE REGIMENTAL SURGEON.—(*Continued.*)

[Communicated for the Boston Medical and Surgical Journal.]

Enlistment of Men.—A part of the surgeon's duties is to examine and decide on the qualifications—physical, intellectual and moral—of men for the ranks. The recently-appointed regimental surgeon will sometimes find difficulty in detecting certain diseases, which will be concealed for the purpose of enlistment. He must also know that at the present time there are a great many volunteers in the service totally disqualified for the performance of their duties by diseases existing before they entered the ranks. He will therefore examine carefully each candidate; the eyes, the teeth, the hearing, the motions and strength of the limbs, shape and proportions of the lungs, the condition of the heart and the great bloodvessels, the abdominal canal, &c. &c. And although he need not be quite so strict, perhaps, for the volunteer service, as he would be in examining for the regular army, yet he should, in my opinion, reject all who are like many who have been admitted, especially to the cavalry service. There is nothing gained by passing men who are not fully competent. Ignorant of the duties to be performed, many of our citizens urge their claims to enlistment under circumstances which will certainly in a few weeks, or months at farthest, convince them that they are perfectly useless as soldiers. Indeed, the regulations of the U. S. Army are eminently proper and necessary, and it would be much better in the volunteer service, in my estimation, to follow these regulations in the matter of enlistment strictly and to the letter. We have able-bodied men enough to fight the battles of the Union, without taking minors, incompetent for lack of years and strength, or old men, debilitated by age and disease. Of course such common diseases as cataract, amaurosis, epilepsy, deafness, paralysis, loss of some of the limbs, enlargement of the heart and great vessels, consumption, hernia, hydrocele, piles, varicocele, varices, chronic ulcers, old fractures, ankylosis, &c., are sufficient causes for rejection of the candidate. It would be better that none should be admitted to the ranks over forty-five years of age.

The consequence of neglecting these wise regulations of the Army is that there is a large body of cripples, and old, worn-out men, hang-

ing about our regiments, lying in the hospitals, and almost entirely worthless in their tents. I have been much surprised at the number of youths and mere boys of fourteen, fifteen and sixteen years of age, totally unable to do the duties of a soldier, whom I have found in the ranks. It must be admitted, however, that a few months of easy training and kind treatment change these boys very much. They learn the tactics quickly, and soon adapt themselves to the requirements and duties of military life. But the demands of the service are such that they cannot always be favored with light duty. When this is the case, they fail in strength, sometimes in health, and break down entirely and leave the service. All this is very costly to the Government, with no good results. Let the surgeon, then, be strict in his examinations, according to the regulations (or see that his assistant does the duty properly), so that the blame of admitting incompetent material shall not rest with him. He will be frequently imposed upon, even while using his best endeavors to prevent imposition. For instance, an old man of seventy-four years, who claimed to be a soldier of Napoleon I., and to have been at the battle of Leipsic, presented himself at the arsenal in Philadelphia for enlistment. When asked his age, he replied that he was over seventy. His answer, of course, excluded him. The next day, a fine-looking man appeared, with black hair and whiskers, who was immediately enlisted, at the ripe age of forty-five. In a week or two, this black-haired soldier gradually became gray, and his age in camp suddenly arose to above seventy. The two medals which he wore, and a twinkle of the eye, proved the black-haired man to be the Napoleonic soldier. This is all very well so far; but the other day the old man, with half a dozen others not so strong as himself, surrounded the surgeon's tent, begging the latter to make out their discharge papers—a request which he complied with very willingly.

Discharges.—Another very important and very delicate duty which belongs to the regimental surgeon, is the matter of discharges, on “certificate of disability.” This matter is almost entirely in his hands, and here it is that he is continually met by feigned diseases. The disability must of course be a permanent one, otherwise the Government does not give up its hold on the soldier. It is astonishing to see with what persistence, perseverance and courage some persons will feign diseases of which they are almost entirely ignorant. A young man from the western part of Pennsylvania did no duty in the regiment, under various pretences, as having a cough, some eruptive disease, &c. &c., from the time of his enlistment, until a few weeks ago—a period of nearly five months. Some three months ago his Captain brought him to me, stating that the men of his tent refused to stay with him, because, in the language of the Captain, “he was nearly rotten.” I saw immediately, by his hang-dog look and stolid expression of countenance, that he was a persevering fellow. I asked him, before the Captain, what was the matter. He said that he had some very bad disease in his left arm-pit, which prevented the use of the arm, and had a very foetid discharge. I told him to call at my tent at a convenient hour, and I would examine him. When he came, I had some trouble to get him to expose his arm-pit, on account of the *stiffness of the arm* and shoulder, which he kept continually tied up. I finally reached the disease, and found a little scaly eruption produced by the friction of his shirt, hardly discernible to the naked eye. There

was no discharge, and no unusual odor. I immediately charged him with feigning, and told his Captain to put him to duty. The young man had played upon the Captain's feelings so effectually that he still allowed him to continue idle about the camp. Gradually, however, the extreme soreness and rottenness of his arm got better; but he found himself ruptured, although he had done no duty, nor been on horseback since he came into camp. He convinced the assistant surgeon of the truth of this assertion, and attempted to get discharge papers on that ground. The fallacy of this pretension being proved to him and to his Captain, he next had varicocoele. A cough and cold, likewise, were perpetual accompaniments, and always came in with everything else. Six weeks leisure was gained by having rheumatism in the right hip, extending to the knee and making him lame, so that he limped through the camp all the time with a cane. His father, at the sacrifice of time and money, came all the way from Alleghany County to see his son and to beg me to get him out of the service. After long and repeated consultations, and on coming to the conclusion with his Captain that he would be of no use in the Army at any rate, I made out his discharge papers on the ground of chronic rheumatism. Now these papers have first to be filled up by the Captain of his company; second, by the Surgeon of his regiment; and, third, by the Colonel commanding, and then approved by the Brigade Surgeon, the General Commanding, the Medical Director, and the General-in-Chief. One copy of these papers remains in the hands of the Captain, the other is kept by the man. This circle of signatures and formalities, which must be gone through with according to rule, verbally and literally, requires sometimes a week, sometimes two weeks, or even as long as three months, to be accomplished. Some four weeks went round, during which my patient was limping about the camp, fattening up and looking very well in the face, before the papers returned from Washington. One name had been omitted in their rounds through the offices—that of the Brigade Surgeon. It was necessary to get his name. My poor, broken-down, but now internally jubilant soldier, called upon the Brigade Surgeon for his signature. This personage examined my patient with the lynx eye of science, and saw through him at once. He did not hesitate, an instant, remorsefully to write on the document, "not approved." This was the hair that broke the camel's back. "Hope withering fled, and mercy sighed farewell." By this time the Captain began to open his eyes, the young man was put upon full and picket duty at once, and now fulfils the duties of a soldier with fidelity and industry. No rheumatism or any other disease is complained of—no cane, no crooked leg, no difficulty.

Another has been dying of consumption for three months in his tent, to the full conviction of his Captain and some of the medical officers. Still another has run the gauntlet of some half a dozen diseases, and is now in the hospital with consumption, *spitting blood*. This also is a young man, but an old sailor. The list in this way might be extended indefinitely. The "regulations" very wisely insist on a medical officer taking two months to decide the question in "doubtful cases."

Nostalgia is a not uncommon form of disease among volunteers. The young, whose maternal associations are still tender, are peculiarly subject to it; but the middle aged, and especially the recently married men, are also very liable to suffer from it. The Mosaic law, which allowed the newly married man immunity from enlistment and war for

one year, in order to "comfort his wife," was doubtless a wise regulation. I have seen, however, a stout man of forty or fifty, unaccustomed to the restraints of camp life, and aware of losses and troubles at home for want of his presence, sink into apathy and disease which shattered his very life. My medical acquaintances in the army tell me that volunteers coming from Vermont, and other mountainous portions of the New England States, suffer most from nostalgia. Occasionally, likewise, an instance may be found of one still more advanced in years, who, on viewing the near approach of death in the Army, and thinking of his distant home, will feel, in the language of Goldsmith :—

"In all my wanderings round this world of care,
In all my griefs—and God has given my share—
I still had hopes my latest hours to crown,
Amidst these humble bowers to lay me down ;
To husband out life's taper at the close,
And keep the flame from wasting, by repose,
I still had hopes, for pride attends us still,

Amidst the swains to show my book-learned skill,
Around my fire an evening group to draw,
And tell of all I felt and all I saw ;
And as a hare, whom hounds and horns pursue,
Pants to the place from whence at first she flew,
I still had hopes, my long vexations past,
Here to return—and die at Home at last."

JAMES BRYAN, *Brig. Surgeon U. S. Army.*

ARMY AMBULANCES—CASES IN THE HOSPITAL OF RICHARDSON'S BRIGADE.

[Communicated for the Boston Medical and Surgical Journal.]

{ *Camp Michigan, Va., Head Quarters 3d Mich. Inf.,*
 Richardson's Brig., Jan. 13th, 1862.

SINCE my previous communication, our brigade has moved a few miles nearer Secessia and gone into winter quarters at this place, four miles from Alexandria. We did not form a brigade hospital, as was anticipated, but we have formed a Brigade Medical Society which meets once a week for conference and interchange of opinions. The meetings are well attended, inasmuch as an extra inducement is held out in the shape of a rich supper to finish up with. The hospital stewards of three of the regiments are advanced medical students, capable of discharging the duties of surgeon in an emergency. These, with the Brigade Surgeon and the four surgeons and four assistants, make a very comfortable attendance ; just enough to be sociable and not so many as to induce stiffness or much restricting formality.

At our last meeting, I presented a verbal article on a subject which I mean to mention here : as through you it may find its way to army surgeons generally, and to some may be of importance. I allude to the subject of ambulances, with regard to which I fear a wrong impression prevails to a very considerable extent. And, as that impression is produced by an article in the "Army Regulations for the Medical Department," it is the more necessary that its fallacy be exposed ; for most surgeons will take statements from that quarter without question. In fact, I did so myself with this statement, until accident taught me better.

In the appendix to the small book furnished to surgeons by the Government, and styled *Regulations for the Medical Department of the Army*, there is given a report upon ambulances by a committee of Army Surgeons, consisting of Surgeons C. A. Finley, R. S. Satterlee, C. S. Tripler, I. M. Cuyler, and Assistant Surgeon R. H. Coolidge. This report is approved and adopted by order of the Secretary of War ; so that I of course took all its statements for some time as being next to incontrovertible. The report says :—

"The Board then proceeded to examine the models and drawings of ambulances. * * * * * The following are the decisions and recommendations of the Board:—

"1. That ambulance conveyance ought to be furnished for 40 men per 1000—20 lying extended and 20 sitting.

"2. That both two- and four-wheeled ambulances are necessary for the hospital service.

"3. That a two-wheeled ambulance is the best for the conveyance of dangerously sick or dangerously wounded men.

"4. The Board being of opinion that both the two-wheeled ambulances submitted to its inspection by Surgeon C. A. Finley and Assistant Surgeon R. H. Coolidge are well adapted to the purposes for which they were designed, and that their relative merits can only be determined by experiment; adopt both, and recommend that one of each pattern be sent to the respective military departments of, &c. &c.

"5. As the pattern of a four-wheeled ambulance designed by Surgeon Tripler, in the opinion of the Board, meets more fully the requirements of the service for the transportation of the slightly wounded, the slightly sick, and convalescent, than any other pattern that has been submitted, the Board decide to adopt it," &c. &c.

This report, as I have stated, was approved and adopted, and Hamilton, in his *Military Surgery*, quotes it with apparent approval. You will observe that No. 3 expressly states that the "two-wheeled ambulance is the best for the dangerously sick and dangerously wounded." Now, I have to take exception to this, and to state, as my candid opinion, that not only is the *four-wheeled* vehicle preferable, but that I would consider the conveyance of dangerously wounded men in the two-wheeled carriage *exceedingly dangerous*; and in fact, that I would not, except as a *dernier ressort*, put a dangerously wounded man into the two-wheeled carriage at all. I regard it as an important duty to my professional confrères to make this statement, and to make it as public as possible, for I feel certain that in case of an engagement, resulting in our having many wounded, serious injury will be done to the badly wounded who are left to the merciless jolting, pitching and tossing of the two-wheeled ambulances.

This opinion is not founded on theoretical grounds, but on actual experiment and experience; and any one who doubts it, has only to lie down in a four-wheeled ambulance and be driven over an ordinary country road eight or ten miles, and then change into a two-wheeled ambulance—lie down, and ride over the same road back again. I have lain in a four-wheeled ambulance, and have had the horses gallop frequently along the road from Alexandria to Polick Church—some twelve or fifteen miles—and have not been rolled completely over. On the other hand, I have lain on the mattress of a two-wheeled ambulance and gone over the same road, at a rate never faster than a trot, and yet I have been rolled over again and again, and thrown with such force against the uprights as to bruise my arm so that it was discolored for fifteen or twenty days. In fact, the pitching and tossing of the two-wheeled vehicle is quite equal to that of an ordinary *caleche*. This will make the difference of some lives if we have a great battle, as we all hope for, though the chances seem to diminish rather than increase.

I cannot leave this subject without requesting surgeons who read this to order out their ambulances, and lie down in them, and *test* the

matter. Hundreds of lives may depend upon this. After I mentioned the matter in our Society, I found that Brigade Surgeon Bliss was already aware of the difference in favor of the four-wheeled vehicle; and Surgeon O'Meagher, of the 37th N. Y., seemed to think that hand conveyance was the only safe way. Of course Dr. O'Meagher is right where hand conveyance is available, but when we are left to the choice of ambulances, by all means avoid the two-wheeled. It is, I understand, the one mentioned in the report as the design of Assistant Surgeon Coolidge.

Since winter came in, we have had a greater variety of diseases. Pneumonia began to show itself some three weeks ago in other regiments about us. With us, it began only about a week ago; or, I may say, it is now commencing, as it appears to be on the increase. We have had a few surgical operations—the extraction of a few balls—some of them the result of accident, and a few received in skirmishes. I do not want to waste your paper with detailed accounts of such wounds. I hope you do not expect that every gun-shot wound is worth reporting. I have seen only four since I wrote. One, of the finger; one, of the wrist; one, of the face, the ball entering a little above and outside the angle of the mouth and passing out behind the sterno-mastoid in the back part of the side of the neck. The course was a dangerous one, but no serious harm was done, and nothing was to be learned. In another case, a ball entered near the middle of the rectus femoris—a little above the middle—and was found just in front of the adductor magnus, four or five inches below the ischium, under the skin. It was cut out easily, and no trouble.

A few weeks ago we had some cases of diphtheria, but they were slight. Several cases of otalgia, terminating in otitis and suppuration, began in early December, and kept coming for some two weeks. Now coughs, colds, diarrhœa and dysentery, with a good deal of rheumatic pains, are the complaints.

Our hospitals have been a matter of great interest to the government, the Sanitary Commission, and every one concerned. Fortunately, we have hit on a good plan, and the medical inspectors have told us that we have the best field hospital in the army of the Potomac. Ere long I will give you an outline of it, if I see that it may help others hereafter. At present it is too late for change, and it would not be worth while to burden your pages with useless matter.

During the months of October, November and December, the cases of all kinds (no matter how slight, if they were excused from duty), occurring in the four regiments of this brigade, were thus:—Michigan 2d, 1,187; 3d, 756; 5th, 816; N. Y. 37th, 853. The leading diseases were:—Acute rheumatism, 101; chronic rheumatism, 24; intermittent quotidian fever, 207; intermittent tertian fever, 295; continued fever, 89; remittent fever, 75; typhoid fever, 144; constipation, 221; acute diarrhœa, 573; acute dysentery, 63; acute bronchitis, 132; catarrh, 709. Discharged, 124. Died, 14.

The mean strength of the regiments is as follows:—Mich. 2d, 927; 3d, 917; 5th, 923; N. Y. 37th, 729. There are only eight companies in this last regiment, two being detached.

GEO. B. WILLSON,
Assist. Surg. 3d Mich. Inf.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, JANUARY 30, 1862.

NATURE IN THE CURE OF DISEASE.—The fashion that is somewhat prevalent at the present time of decrying the use of drugs in the treatment of disease, and which arises partly from a skepticism characteristic of our days, and probably in some degree from a species of indolence which readily finds an excuse for getting rid of a study, to many an unwelcome task, is well commented upon in the following extract from an article in a recent number of the *London Medical Times and Gazette*, which we would commend to our readers as containing much sound sense :—

“Another insidious and plausible mode of discountenancing the use of drugs is to represent them as ‘unnatural,’ and to speak of ‘Nature and Art in the cure of disease,’ as if there were some antagonism between them, and as if the use of drugs were artificial, and, if so, reprehensible.

“Just as one portion of popular error arises from ignorance of facts, so does another and more inveterate set of errors arise from confusion in the use of words. ‘Nature,’ for example, is a word that is incessantly quoted. It is ‘natural,’ we are told, to wear the beard; ‘natural’ to drink when thirsty; ‘natural’ for mothers to suckle their infants; and, as the authors of twopenny treatises and lectures on diet never fail to tell us, it is ‘natural’ to eat brown bread. Popular books on medicine are rich in this sort of practical joke, if we may call anything a joke that destroys human life, for we hold that bad logic destroys more lives than gunpowder. For example: one of the popular books on medicine which we reviewed lately (and by no means the worst of them) contained a story such as this:—‘A monthly nurse once asked me, if she should give some gruel to a newly-born infant. I replied, “Now don’t you think, nurse, that if *Nature had intended* it to have gruel, the child would have been born with a bottle of gruel round its neck?”’ This poor woman of course was vanquished by this precious piece of argument; yet she might fairly have asked, in return, had Nature intended the cord to be divided; had she meant the child to be washed and dressed, and whether scissors, thread, hot water, soap, sponge, violet-powder, and cambric chemisettes might not have been objected to on the ground of unnaturalness, quite as much as gruel. The fact is, that the word *Nature* is used to signify at least two independent ideas. One is that brute, naked state in which any given thing happens to be found without interference or improvement by the hand of man: *a state of Nature* as it is called. The other meaning includes the whole faculties and capabilities, including the circumstances favorable to full and luxuriant growth and development. Thus, man in a state of Nature (to use the word in one sense) is a filthy, stinking, verminous savage, thoroughly selfish and utterly deficient in those finer feelings of love for parents and children which we, educated under the influence of Christianity, are wont to call ‘natural affections.’ But the nature of man (to use the word in the other sense), includes the possession of conscience and reason, which teach him to check mere brutal instincts, and prompt him to explore, subdue and utilize all the objects he meets with, and to employ them in such a way as to produce for himself the greatest amount of beauty, comfort, health and strength. Hence to denounce or sneer at, as *unnatural*, the use of drugs, which man’s instincts prompt him to seek, and his intellect enables him to find, is a monstrous and most mischievous perversity. But so it is. A patient in a well-built house, in a comfortable bed, fed with food and clothed with textures from all the quarters of the globe, and dependent for his comforts, and even his life, on the accumulated products of centuries of human art, is supposed to be treated *naturally* if he takes no medicine: the case is ‘left to

Nature; but if any of those beneficent means be used which have also been slowly gathered together during the progress of human civilization—leeches, for example, to take a little blood where it is superfluous; anodynes to procure sleep, or aperients to empty the bowels—forsooth this is unnatural and artificial! and therefore suspicious if not positively wrong.

“Let us say, emphatically, to administer drugs out of mere routine is contemptible. To give unnecessary medicines for the sake of adding to professional profit is degrading. The rash and blindfold heroic practice of giving active remedies in all cases (whether bleeding or brandy) is dangerous. To neglect air, food and regimen, is to let half our weapons lie idle. But we do desire most earnestly to vindicate and uphold the rational and temperate use of those drugs which are employed in ordinary practice; because they can produce effects quickly, which cannot be obtained quickly from rest, diet, or other appliances, and because human suffering may be enormously mitigated by them. Whilst we get rid of the old apothecary traditions, let us avoid that half-indolent, half-skeptical spirit that would rob us of some of our most valuable instruments, and encourage the public in prejudices that have been but too successfully instilled by our adversaries. Let us study the practical art of healing, and the uses of drugs especially, for, in the words of the author of Ecclesiasticus, ‘He that is wise will not despise them.’”

MESSRS. EDITORS,—The note from Dr. Hayward, Surgeon of the 20th Mass. Regiment, published in your issue of to-day, has given me a most unpleasant surprise. I ought to have confined the publication to the purely professional part of Dr. Hayward's letter, but did not appreciate the propriety of such restriction till I read it in print.

I must state in self-defence that—neither with the letter, nor since—have I received, till now, the slightest intimation that it was to be regarded as confidential in any sense, or to any degree. At the same time, I would express my extreme and sincere regret that any act of mine, intended simply to lay before the profession a narrative of great present interest, and with the very kindest motives and wishes towards Dr. Hayward, should, in any way, have given “chagrin and mortification” to one whom I have always regarded with the most sincere esteem.

The possibility that the letter might be published probably never entered Dr. Hayward's thoughts, and so he did not accompany it with any prohibition or intimation of its confidential character; but still I will frankly acknowledge that, in my own interest in his narrative and my desire that others should participate in that interest, I failed to reflect sufficiently on the annoyance which might possibly result from its publication.

HENRY A. MARTIN.

Roxbury, January 23d, 1862.

MESSRS. EDITORS,—A Review in a late number of the JOURNAL of a pamphlet on “An improved Method of treating Fractures of the Thigh, by Gurdon Buck, M.D., of New York,” suggested to me that it would be well to mention that the apparatus alluded to has been tried with success at the Mass. General Hospital; Dr. Buck having kindly sent me one of them.

The patient on whom it was applied was a male adult, with fracture of the thigh. The result was only half an inch shortening. I have seen the patient, a month after his recovery, and he thinks he shall walk without any lameness. I was enabled, fortunately, to compare this case with that of another patient, who lay beside him, with a similar fracture, and who had on the improved Dessault apparatus of the Hospital; they both unqualifiedly expressed their preference for this ar-

rangement, as more conducive to comfort, while it enables the patient to sit up in bed at his meals, and to have his evacuations with more ease. Its simplicity is certainly a recommendation, as it can be applied with facility in private practice.

A boy, with fracture of the thigh, has since been treated with it, and it has resulted in no shortening, which, however, is an occurrence not unusual in patients of that class.

18 *Somerset Street, January, 1862.*

S. D. TOWNSEND.

REPORT UPON THE SANITARY CONDITION OF THE ARMY.—The Medical Board appointed to consider the sanitary condition of the army of the Potomac, consisting of Drs. McLaren, George H. Lyman and Asche, have made their report, which furnishes some interesting facts in relation to the character of the disease termed “typhoid fever,” and the causes of its adynamic type. They were requested especially to inquire whether the disorder was to be considered an intermittent or bilious remittent fever in its inception, assuming in its course the typhoid type, or a typhoidal fever primarily.

“The Board report that the disease was evidently of malarious origin. As a general rule, the fever treated as malarial, with quinine and mercury, was checked, and the typhoid state only appeared as a result of a continued neglect of hygienic precautions when in health, and in those persons who had been exposed to unusually severe and prolonged duty. The cases were not of the gastro-enteric fever, so common in the northern States, and there generally known as “typhoid fever,” but the previous location of the regiments in regions notoriously malarious, justified the Board in attributing malarial origin to the cases under their notice. The disease assumed different aspects in the different divisions, and from causes that are explained. In Gen. Smith’s division nearly all the diseases assumed a typhoid type, which was attributed to ‘crowd poisoning,’ produced by overcrowding men in their quarters, and also to fatigue in excessive drilling. The Board found nothing to justify an opinion that typhoid fever existed as an epidemic. They suggest the means of preventing disease of the sort, viz., sufficient space for quarters; proper discretion in allotment of time for drill; the rigid enforcement of cleanliness, and diversion of the mind by gymnastic and other sports. The Board states, in conclusion, that the sanitary condition of the army generally is eminently satisfactory.”

MILITARY HOSPITALS IN MISSOURI.—The Secretary of the Western Sanitary Commission, J. G. Forman, has published a report concerning the hospitals in and around St. Louis, Mo., from which the following statistics are obtained:—“Whole number of patients admitted into the general and post hospitals of St. Louis, from August 11, 1861, to January 1, 1862, 8,676; number of patients in hospitals Jan. 1, 1,407; number of deaths, 532.” These cases occurred in nine hospitals, including one for smallpox (on an island) with 56 admissions, 12 deaths, and 26 remaining; also one for measles with 864 admissions, 85 deaths, and 131 cases remaining. In regimental hospitals, barracks, &c., in and near St. Louis, besides the above, also in Rolla and along the line of the Pacific Railroad, nearly 5,000 more cases are reported during the same time, with an incomplete return of deaths. In the total number of deaths reported, in the hospitals first named, are, from febris typhoides, 196; pneumonia, 98; diarrhœa acuta, 28; do. chronica, 20; dysentery acuta, 11; do. chronica, 20; consumption, 27; erysipelas, 23; gun-shot wounds, 10.

MEDICAL MATTERS IN THE SIXTH VERMONT REGIMENT.—A letter from this Regiment says—"On the 8th of January fourteen of our regiment were discharged from service for disabilities. All of them, or nearly all, were unfit for military duty at the time they enlisted, and were not inspected out by the examining surgeon.

"Mr. Phillips, who has been our faithful Ward Master, has been commissioned Assistant Surgeon of the regiment.

"Since my last to you there have been nine instances of mortality in the regiment, part of them taking place at the Brigade Hospital, making an aggregate number of 36. The new log-cabin Hospital, built some 150 rods from our grounds, is completed, and will be occupied as soon as the weather will permit the sick to be moved."

NEW MILITARY HOSPITAL AT HILTON HEAD, S. C.—The correspondent of the *New York World* gives the following gratifying information respecting the provision which is making for our numerous sick soldiers at Port Royal:—"The Hospital building approaches completion. The order to get the materials was taken to New York by the Atlantic on her last trip, and during the time that she remained in port every plank, beam and joist, to be used in its construction, was prepared and fitted together. A salubrious site has been chosen, and in a week or two our sick soldiers will be provided with proper accommodations. The building will form a hollow square of 325 feet in length from angle to angle. The main floor will be elevated three feet above the ground, and the height of the ceiling will be fifteen feet. Spacious corridors will be attached to the main building for the purpose of affording exercise and recreation to the convalescing patients. It is intended to accommodate 300 persons comfortably, allowing ten square feet to each person; but in case of emergency, double that number could be provided for."

HOSPITAL ACCOMMODATIONS FOR THE BURNSIDE EXPEDITION.—Accounts in the papers, which appear to be reliable, respecting this expedition, give the following particulars of the hospital arrangements connected with the fleet:—Major Church, Division Surgeon, has established very excellent accommodations for the sick and wounded. The schooner *Recruit*, one of the best vessels in the fleet, is fitted up with 440 berths on two decks in her hold, and furnished with every appliance necessary to the care and comfort of the disabled. Everything is remarkably neat and clean; and the transition of the suffering soldier from the regimental hospitals, where chills and colds and sweats succeed each other, to the warm and comfortable apartments of this ship, must indeed be gratifying to his enfeebled energies. The division hospital ship is in charge of Dr. Samuel A. Green, of the Massachusetts Twenty-fourth, assisted by Dr. Theron Temple, of the Twenty-fifth Massachusetts, and Dr. Dodge, of the Fifty-first New York.

RE-ORGANIZATION OF THE MEDICAL DEPARTMENT OF THE ARMY.—A meeting was recently held in New York, as we learn from the *Medical Times* of that city, of the Associate Members of the U. S. Sanitary Commission, and of the members of the Commission resident in the city, for the purpose of urging upon Congress the importance of re-organizing the Medical Department of the Army. Among the changes

advocated were that of substituting merit for seniority in the law of promotions, and the establishment of a higher grade of assimilated rank than that of a colonelcy. Senator Wilson's bill, now before the Senate, or one substantially the same, was recommended to Congress in the resolutions passed by the meeting.

EFFECT UPON CONSUMPTIVES OF SEA VOYAGES AND WARM LATITUDES.—The Parisian Correspondent of the *Evening Gazette*, of this city, in a recent letter in that paper, says that the French Academy of Medicine has recently renewed the consideration of the subject of the influence of sea air and warm climates on the health of consumptives. In 1855, an essay on this subject by Mons. Jules Rochard obtained the prize which had been offered by the Academy. In that essay, the writer totally denies the favorable influence which had been thought to be exerted on patients affected with pulmonary phthisis, by sea voyages or a residence in warm climates. On the contrary, he maintains that phthisis is much more rapid in its progress aboard ships than on land—that it is more common among sailors than among soldiers on shore—that none but stout lungs can breathe an atmosphere saturated with humidity and irritating saline vapors from the sea—and that warm climates situated near the tropical regions exert an unfavorable influence on pulmonary tuberculization. Phthisis, he says, has its victims in every latitude. Statistical tables were made out to support his views. Soon after, Mon. P. Garnier read a memoir to the Academy for the purpose of controverting the bold assertions of M. Rochard. The proofs in support of his own side of the question were mostly drawn from the statistics of deaths in the large naval hospitals of France—at Toulon, l'Orient, Rochefort, Brest and Cherbourg; in which he finds that out of 8,997 deaths which have taken place, only 847 were caused by phthisis. This is less than one tenth, whereas one fifth is the average annual mortality from the disease throughout France. In examining the subject anew, Mons. Blache read the report, which is considered a very able one. He carefully examines the two former memoirs, and decidedly gives preference, for accurate investigation and reliability, to that of M. Rochard. The facts from the navy yards, upon which M. Garnier relies so much, are not thought by Mons. Blache to be strictly applicable, as so many of the individuals in such places are confined in houses and workshops on shore, where the land breezes periodically blow, and cannot therefore be said to breathe a sea air. The Academy adopted Mons. B.'s report, and therefore have now given new currency to the opinions of M. Rochard in 1855. The whole investigation and discussion upon the subject seem to warrant the belief that one's native air is best suited to the proper treatment of consumption.

STATE LUNATIC HOSPITAL AT NORTHAMPTON.—From the Sixth Annual Report of the Superintendent of this Institution, Dr. Wm. Henry Prince, to the Board of Trustees, we learn that “at the close of the last year, there were in the hospital 315 patients, of whom 137 were males and 178 were females. Since then 122 have been admitted, of whom 70 are males and 52 are females. Seventy-five patients have been discharged during the year, of whom 43 are males and 32 are females. Thirty have died; of these, 15 were males and 15 were fe-

males. There are now therefore remaining under treatment, 332. One hundred and forty-nine of these are males and 183 are females. The whole number under treatment during the year is 437. We have now in the hospital 17 patients more than at the beginning of the year, and during this year the benefits of the institution have been extended to 37 persons more than in the year preceding."

MORTALITY OF TOWNS IN CONNECTICUT.—The *Connecticut Courant* gives the following registration returns from several places in the State, for the year 1861:—New London, births, 210—males, 94; females, 114; sex not stated, 2. Marriages, 90. In Windham, 118 births, 53 marriages, and 60 deaths. In Norwich, the number of marriages was 167; births, 407; deaths, 233. The number of births in Bristol is reported at 42; marriages, 63; deaths, 55. The deaths in Danbury were 118. Of those who died, 10 were 70 years old, 8 were 80, 7 were 90, and 3 were 100. Number of births in Bridgeport 519; of marriages, 93; deaths, 257.

APPOINTMENT.—Dr. C. F. Winslow, late of this city, has been appointed U. S. Consul at Paita. Dr. Winslow has recently held the office of Physician to the Hospital at Callao.

We are indebted to Dr. Ephraim Cutter, Secretary of the Middlesex (Mass.) East District Medical Society for three interesting cases, which we regret we have not room for this week. We should be glad to receive similar favors from other District Societies.

THE practice of salting the streets of New York, after every snow storm, to hasten the melting of the snow, is now forbidden by law. Great injury resulted from it to persons in the street, and also to horses, in consequence of exposure to the intense cold to the feet produced thereby. As a sanitary measure this action of the Common Council, says the *N. Y. Med. Times*, is worthy of all imitation.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 25th, 1862.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	41	37	78
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	39.8	37.1	76.9
Average corrected to increased population, . . . . .	..	..	85.77
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
17	0	4	6	7	0	0	1	1

TO CORRESPONDENTS.—A paper on the History and Properties of the Pyrophosphate of Iron, by Prof. Chapman, of Brooklyn, N. Y., and one on Dr. Cooper's "New Surgical Principles," by Dr. G. B. Willson, will appear next week. Papers read before the Middlesex East District Medical Society; Dr. Cotting's description of a new "Fracture Bench"; Extracts from the Records of the Boston Society for Medical Improvement; Dr. B.'s description of a "freak of nature"; and Dr. H. A. Martin's Obstetrical Cases, are also on file.

PAMPHLETS RECEIVED.—Eighth Annual Report of the Inspectors of the State Almshouse at Monson.—Sixth Annual Report of the Board of Trustees of the State Lunatic Hospital at Northampton.—Eighth Annual Report of the Inspectors and Superintendent of Rainsford Island Hospital, Boston Harbor.

MARRIED.—In Lawrence, Jan. 15th, Dr. S. W. Jones, of Leavenworth, Kansas, to Miss Mary Lizzie Richards, of L.—In East Brookfield, Vt., Jan. 1st, Dr. George A. Fisk, of Barton, to Miss Georgianna Updike, of East B.

DEATHS IN BOSTON for the week ending Saturday noon, January 25th, 78. Males, 37—Females, 41.—Apoplexy, 1—asthma, 1—congestion of the brain, 1—inflammation of the brain, 1—bronchitis, 3—consumption, 17—convulsions, 3—croup, 4—debility, 2—diarrhoea, 1—diphtheria, 1—dropsy, 3—dropsy of the brain, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 1—gastritis, 1—disease of the heart, 2—infantile diseases, 4—disease of the lungs, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 1—paralysis, 1—pleurisy, 1—puerperal disease, 1—scrofula, 2—teething, 1—unknown, 5—whooping cough, 2.

Under 5 years of age, 37—between 5 and 20 years, 8—between 20 and 40 years, 15—between 40 and 60 years, 5—above 60 years, 10. Born in the United States, 59—Ireland, 16—other places, 3.

RARE

PER

